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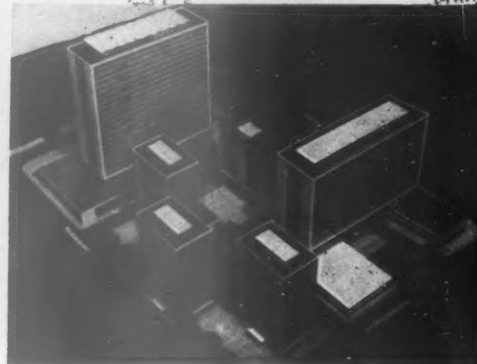
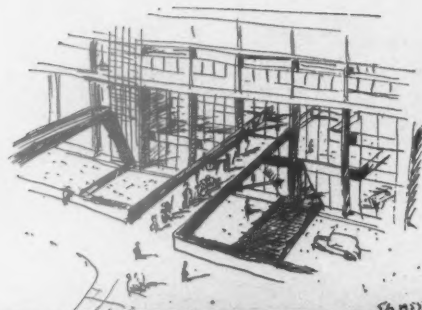
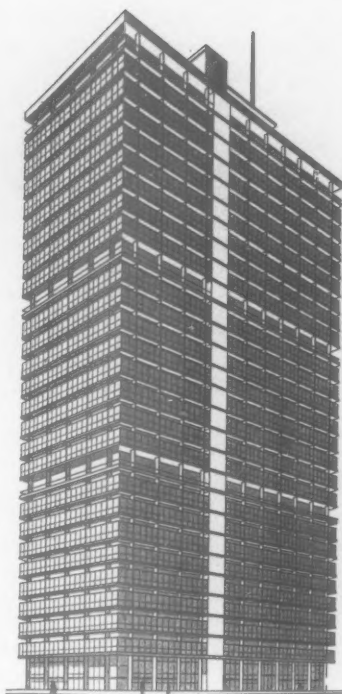
## MARGINALIA

### L'Architettura

With the apparent demise of *Spazio*, Rome has appeared likely to find itself without an architectural magazine of breadth and stature commensurate with the Eternal City's standing in the Modern Movement, but the apparent and equally regretted demise of *Metron* has now resolved itself into *Metron-transmogri-fied*—*L'Architettura*, a new bi-monthly which will clearly carry weight. It inherits much from *Metron*, most notably its typography and its editor, Bruno Zevi, but the earlier paper's connection with Signor Olivetti's *Comunità* programme of social and technological reform seems to have been severed, and replaced by a linkage with the urbanistic studies of the *Fondazione Aldo Della Rocca*.

The Della Rocca contribution comes as a separate supplement at the back of the magazine, the rest of which follows the programme of: 1, Editorial and short editorial notes; 2, recent buildings; 3, projects; 4, articles on general subjects; 5, history and criticism; 6, structural techniques, and 7, bibliographical and other notes. The programme is familiar enough, but English readers will find *L'Architettura* more familiar than that. In his full-dress editorial Bruno Zevi says that the magazine 'is different from the others. The London *Architectural Review* is the most similar, though that magazine is a product of a culture less methodologically strict and more psychologically fertile than ours.' Just how similar is shown by the appearance of an article on 'Paesaggio Urbano'—or Townscape with an Italian accent. This would appear to be the first deliberate use of the word, and the accompanying techniques of visual analysis, in any European magazine, and we wish Vittoria Calzolari good hunting in one of the richest Townscape / Outrage terrains in the world, the streets of Rome.

But a study of her article will show what Zevi means by 'methodologically strict and psychologically fertile'—if not in quite the sense he intended. A map of the Piazza Ungheria with every piece of street furniture located and named shows, perhaps, a more



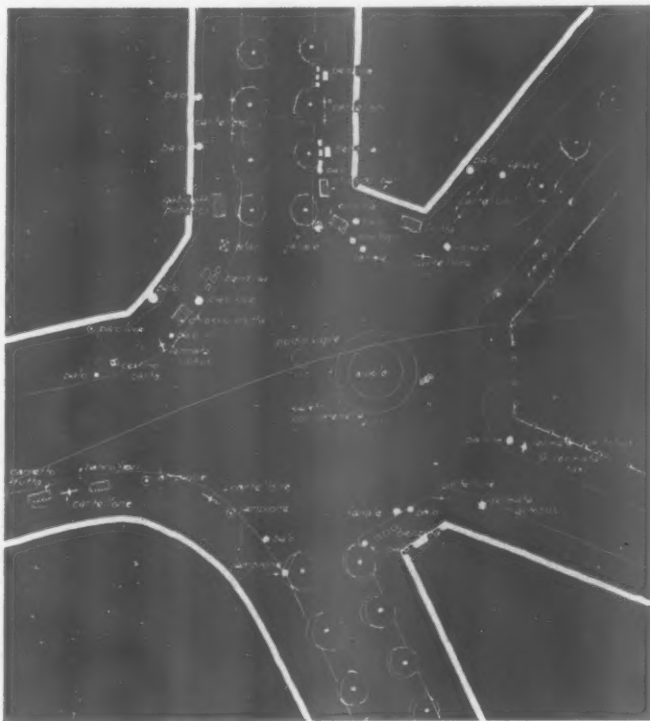
**HIGH RISE IN THE CITY.** Two more projects for high-rise developments in the City of London have been announced recently. For a site in Moorgate the architects Erno Goldfinger and H. T. Cadbury-Brown have designed a free-standing tower block, left, of twenty-seven storeys. Vehicle access is to be below pavement level, as shown in the architect's drawing, right above, and the recessed floors at the ninth and eighteenth storeys are intended for palatial executive suites. The other project, below, is a small comprehensive development for one end of the Barbican site, designed by C. Edmund Wilford, for the Hammerson Group of Companies. This is a mixed development with building heights ranging from three to twenty-seven storeys, and full provision for shops and extensive underground car-parking.

methodical approach than is common in English practice, but also a more abstract one, while her complaint that 'the vista down a street (often) ends in the gigantic "M" of Motta cakes instead of an obelisk or campanile' seems to suggest an aprioristic assumption that all obelisks are better than Motta

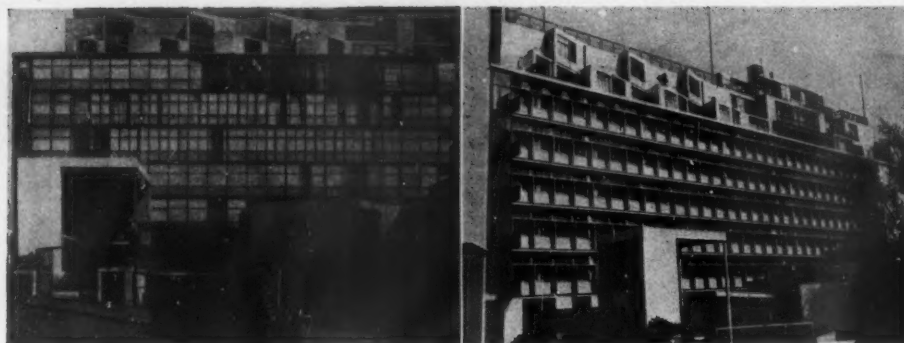
advertisements—an attitude which might easily prove psychologically infertile if pushed to methodologically strict conclusions.

### Turn Again

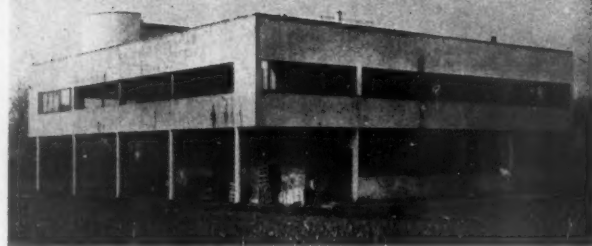
The special value of the MARS Group exhibition 'Turn Again', staged last month as a 'protest against the lowered architectural standards in the City of London' was that it carried the war right into the enemy's camp. It was held in the courtyard of the Royal Exchange and, what is more, was opened by the Lord Mayor. It consisted of photographs of modern city buildings—European, North and South American and a few English. Assuming that the people who sponsor the monstrosities with which the City is being burdened at present do so in ignorance of any alternative, it is obviously desirable and useful to show them what other cities have achieved by being aware of the existence of contemporary architecture. But the exhibition did not explain that the advantages of modern architecture do not only lie in the fact of its being contemporary and aesthetically more appropriate, but in its being more efficient and economical because it makes full use of modern techniques. Neither did it try to relate the architectural argument to the needs of the City, and thus ignored all questions of townscape and the relationship between buildings, on which the quality of the City will ultimately depend. Nevertheless, if it made some City business men look more critically at their own productions it will have added a little to the campaign of protest, which must be pursued further by all possible means—preferably more constructive ones.







**LE CORBUSIER: TWENTY YEARS AFTER.** The present condition of two master-works of Le Corbusier, completed between 1930 and 1933, is shown in these two recent photographs by Robert Browning. Above, the Cité de Refuge, Paris, now once more in excellent condition mechanically and structurally, with the added brise-soleil, by Pierre Jeanneret, which has so drastically altered the appearance of the great glass façade (previous condition, upper left) that a complete re-appraisal of its architectural qualities is required. Below, Les Heures Claires (the Savoye house at Poissy) after fifteen years of neglect; in spite of discoloration of the rendering which is no worse than that shown by English Regency stucco-work after comparable periods without maintenance, the house seems as sound as ever and much of the plate glass is still intact. Evidence of present agricultural occupancy is to be seen all around, and the guest-suite on the ground floor is occupied—its present aspect unfortunately re-inforces the comparison with Palladian villas suggested by Colin Rowe in his article, *The Mathematics of the Ideal Villa* (AR, March, 1947).



**JAPANESE INFLUENCE—ON JAPAN.** The Influence of Japanese art on the avant-garde artists of the west from Baudelaire to Charles Eames is something that every beginner in the history of the Modern Movement is expected to know about. The continuous influence exercised by Japan on the rise of abstract art, round-about through Whistler and Gauguin to Mondrian and on to Mies and Ben Nicholson is particularly notable, and the aesthetic debt which has been accumulating over the last century has now mounted to almost world-bank proportions. Repayment has now begun, however, and in kind. It was an expendable mass-produced art—the popular Ukiyoe prints—which spread Japanese influence abroad, and it is on expendable mass-produced objects that Western abstract art has gone back into Japan, for the 'relief' after, and credited to, Ben Nicholson which is reproduced above is a current Japanese match-box cover.

**Architect of the House in Hampstead.** Alexander Gibson. Succeeded in being born, early in the

century, in a pair of early Victorian semi-detached houses—Greek and decayed. Earliest memory, lying in pram looking at Cabbage White flying round Doric capital. Miserable schooldays alleviated by cricket and lectures on Italian Renaissance. False start as accountant, followed by five irresponsibly happy years at A.A., remembered chiefly for its bonfires and cricket in the square.

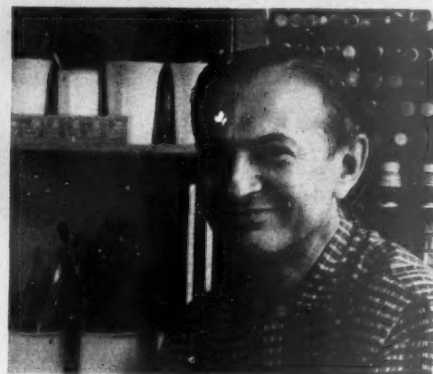
Before the war alternated between the offices of Gropius & Fry and Norman & Dawbarn, and owes a great debt to Gropius. After the war abandoned a solitary and too private practice of war damage and drainage to join Design Research Unit. Has since designed houses, farms, exhibition stands,



interiors, and with Misha Black the Regatta Restaurant on the South Bank.

Lives in Hampstead: is married to a marionette operator, who keeps a family of three children adequately strung together,

and unties the worst of the knots. Eldest son, refusing to be warned, is finishing his first year at A.A.; second one has accepted warning; daughter draws, models, rides, grooms, lives and dreams about horses.



**Architect of the House at Santa Fé.** Alexander Girard, born in New York 1907. Graduate of RIBA; then studied and had first practice in Italy, returning to US in early 1930s. Much of his work has been in the field of exhibition and showroom design, together with some offices and a number of private houses, including two for his own occupation, the first at Grosse Pointe, Michigan (AR, April, 1950) and the second, which appears in this issue, at Santa Fé.

#### Intelligence

The RIBA London Architecture Bronze Medal for 1954 has been awarded for the Ackroydon Estate, Wandsworth (AR, October, 1954), designed by the architect to the LCC. The RIBA Bronze Medal for the three-year period ending 31st December, 1954, in Essex, Cambridge and Hertfordshire, has been awarded for the Harrowfield Boys' Secondary School, Harold Hill, Essex, designed by Richard Sheppard & Partners.

#### ACKNOWLEDGMENTS

MARGINALIA, page 72: Corbusier, 2 & 3, Robert Browning; PAUL HOGARTH, pages 75—79: Alan M. Bechervaise; HOUSE AT SANTA FÉ, pages 81—86: Alexander Girard; HOUSE AT HAMPSTEAD, pages 87—89: Galwey, Arphot; SCHOOLS AT HARLOW AND HORNSEY, pages 98—105: Galwey, Arphot; PEDESTRIAN SHOPPING CENTRES, pages 106—110: Galwey, Arphot; CURRENT ARCHITECTURE, pages 111—114: all photographs by John R. Pantlin; MISCELLANY; history, pages 115—116: P. S. Spoker; exhibitions, page 118: 2, Marlborough Fine Art Ltd.; 5, Ernest Brown & Phillips Ltd.; Landscape, page 119: Eric de Maré; Play Sculpture, page 122: Mitzi Cunliffe. SKILL, Interiors, pages 125—127: Offices in Park Lane & Copthall Avenue, Galwey, Arphot; pages 128—129: offices in Aldford St., Wainwright; Design Review, pages 129—132: Toomey, Arphot.

#### Three Schools by the Architects' Co-Partnership

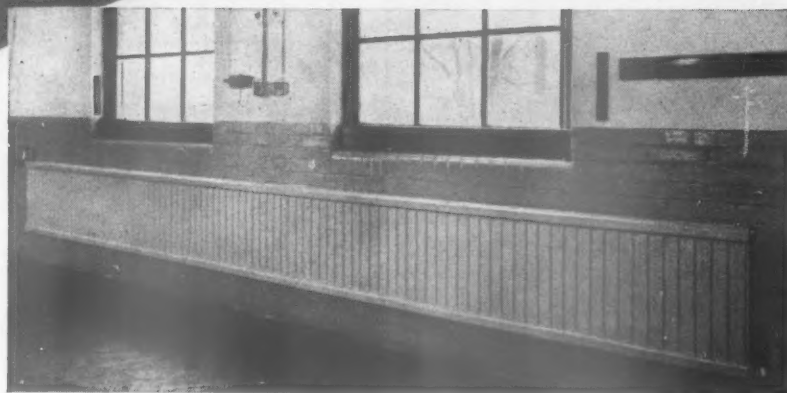
The colour half-tone blocks on pages 21, 23, 24, 25, 27 and 28 of the July issue were made available by courtesy of Hills (West Bromwich) Ltd., Welwyn Builders Ltd., Adamsez Ltd., Samuel Elliott & Son (Reading), Quicktho (1928) Ltd., Docker Bros., Boulton & Paul Ltd., Hollis Bros. Ltd., Gee, Walker & Slater Ltd., Weatherfoil Heating Systems Ltd., Gyproc Products Ltd.

#### Offices in Park Lane

The colour-blocks on pages 126 and 127 of the present issue are by courtesy of Erwin Wasey Ltd.



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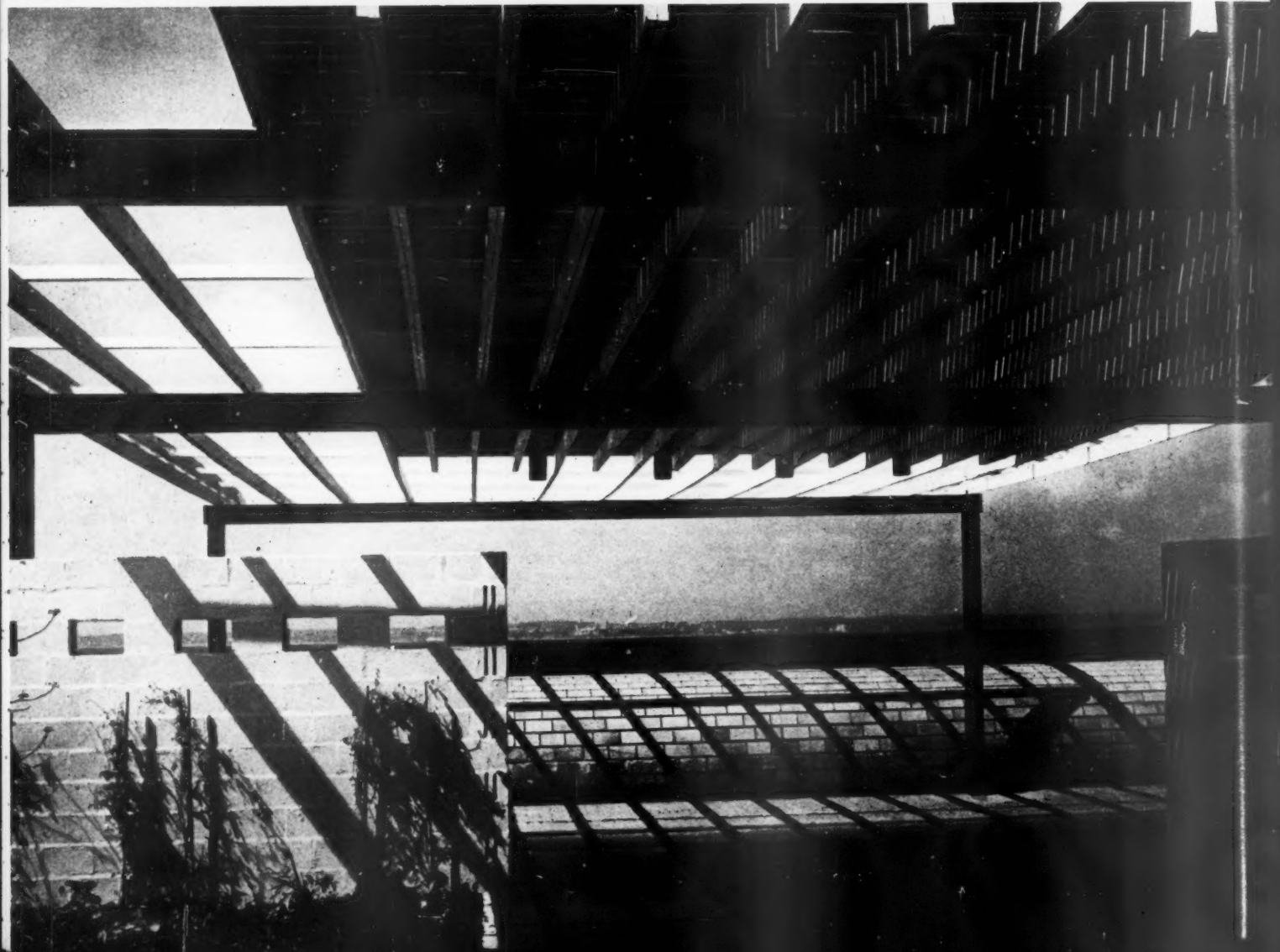
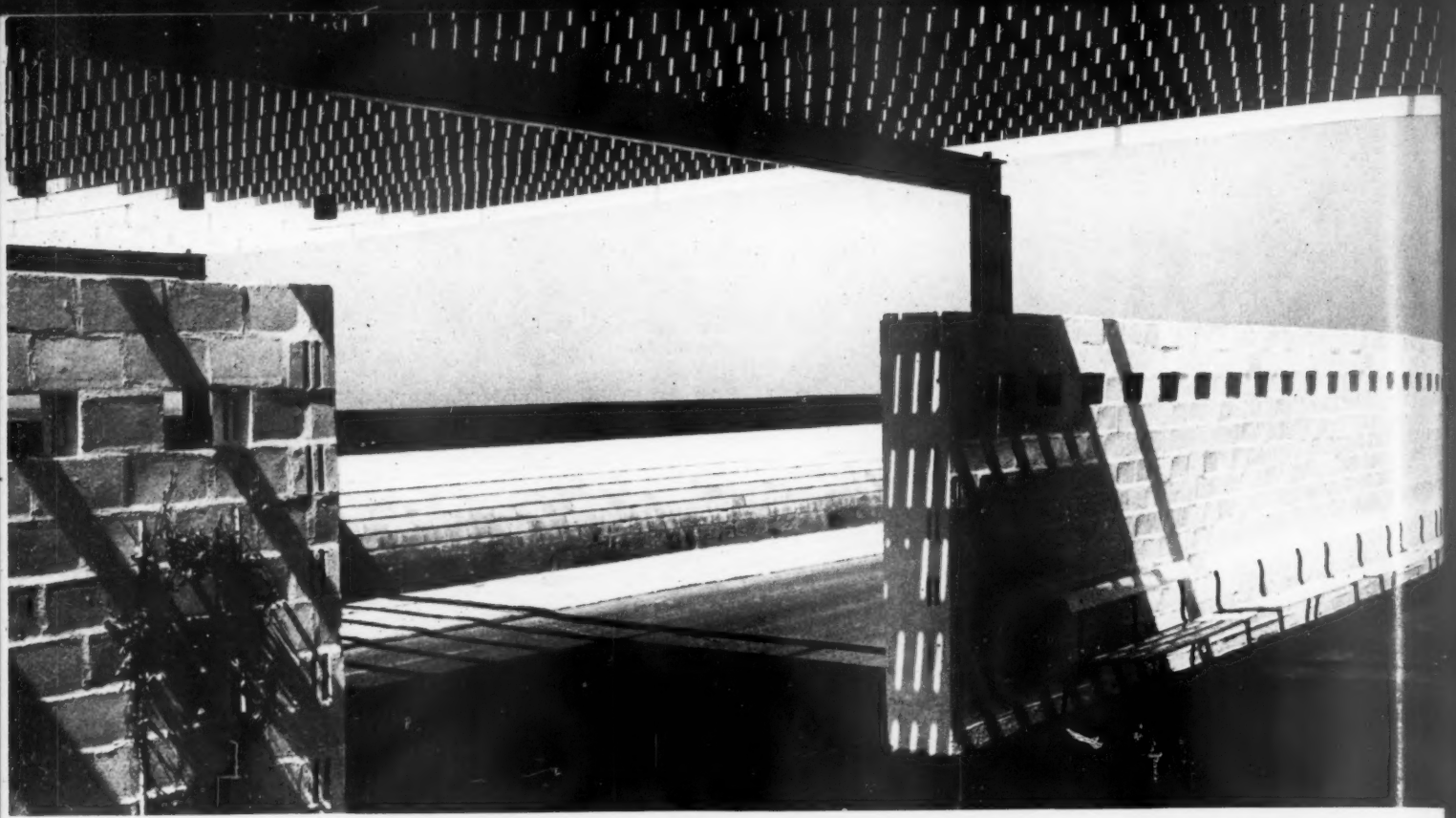



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**The Functional tradition at H 55.** Since the 1955 Helsingborg exhibition is sited on a pier separating the harbour from the open strait, it is appropriate that it should make full use of the functional tradition, which is largely nautical in inspiration. One characteristic of the functional tradition is its very simple use of the basic geometrical elements of architecture, as in these two views opposite  taken in the formal gardens that link the various exhibition buildings—some open to the sky; some partly covered by timber pergolas. The walls which protect the gardens from the sea winds are, like the walls of the smaller exhibition buildings, of breeze blocks, whitewashed. Openings at eye-level permit a view of the horizon. The curved stone wall in the background of the pictures is part of the permanent structure of the pier. In the distance in the lower picture can be seen the coast of Denmark. H55 will be illustrated and described in the *VIEW*'s October issue.

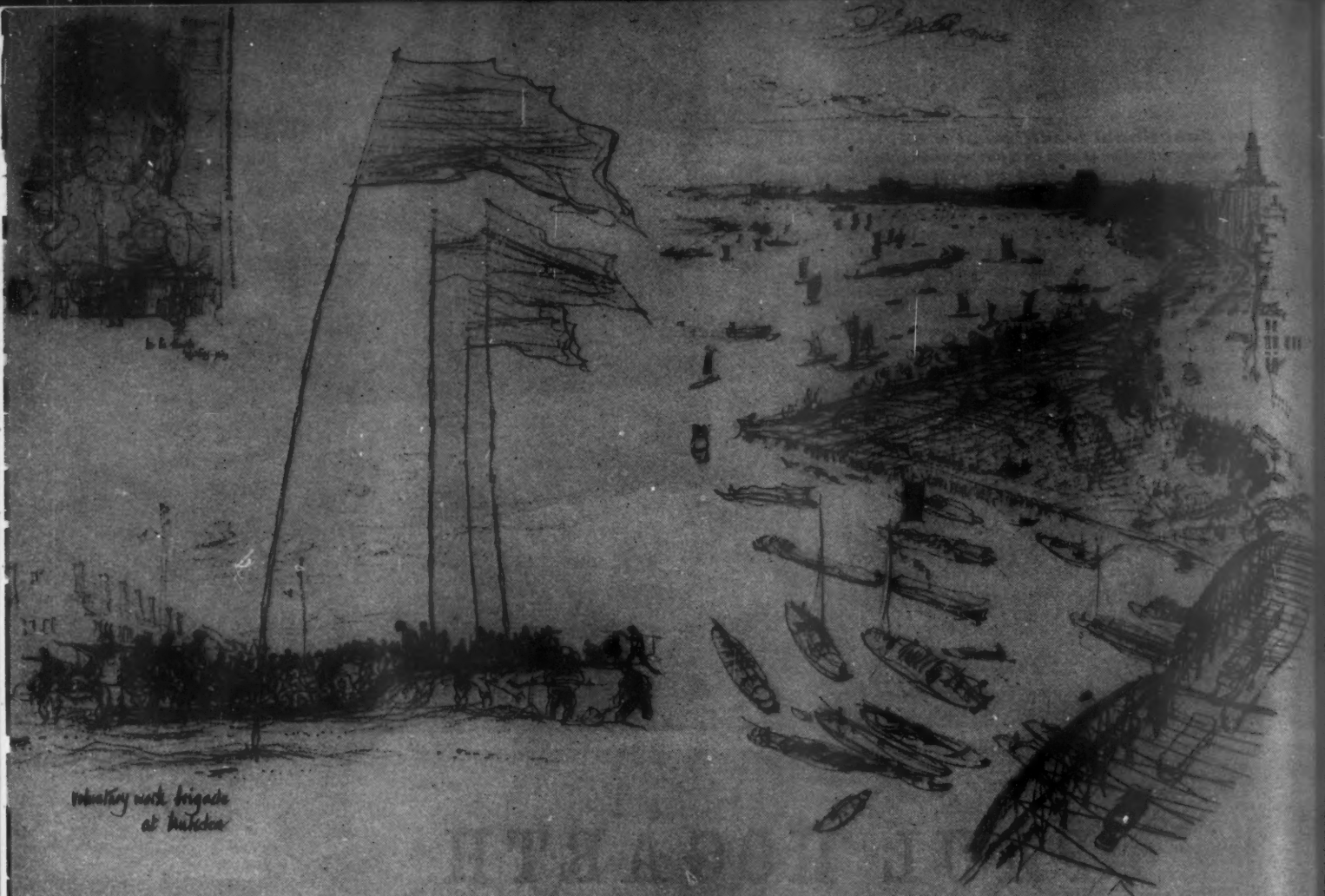
Robert Melville

## PAUL HOGARTH

It is over a hundred years since Constantin Guys published his summary drawings of Spain, Turkey and the Crimea in the *Illustrated London News* and was praised by Baudelaire for his brilliant execution of 'a task that artists disdain and which it was especially left for a man of the world to perform'. The artists of our time might seem to treat the task of recording the passing event and the changing face of the world with even greater scorn than their 19th-century predecessors, but in fact they have simply taken it for granted that a topical drawing is a laborious and far too straightforward substitute for the queer, distorted imagery of the news photograph and the voluptuous textures of the more considered kind.

From time to time, however, we are sharply reminded that the withdrawal of the artist into more abstract domains entails a great loss to the community of spirited and humane comment upon its affairs. When Henry Moore gave us his stately and moving reports upon conditions in the air-raid shelters, and Graham Sutherland made his superbly exasperated drawings of destruction in the City, their work was understood and appreciated by the community as a whole, and one does not need to be a marxist to realise that social realism at that level is much to be desired. All the same, even if the war-time drawings of Moore and Sutherland prove once and for all that when the graphic artist rises to the occasion he quite outclasses the camera, it has to be admitted





Voluntary work brigade  
at Nantong

Shanghai



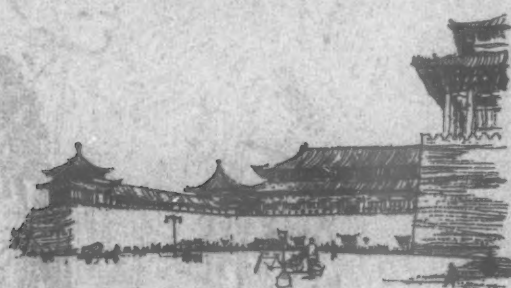
Beats under construction  
in the Tian Shan at Peking



*Red Square, Moscow.*

that we cannot afford to contrive such calamitous occasions in order to stimulate our most talented artists to communicate directly with all levels of society, and Baudelaire was undoubtedly right to distinguish Constantin Guys from the run of artists, for it is evident that very few of our contemporaries could bring the zest of Guys to the role of special correspondent.

Paul Hogarth, a graphic artist who has deliberately set himself the task of becoming a special correspondent, without even waiting for commissions, has nothing like the appetite

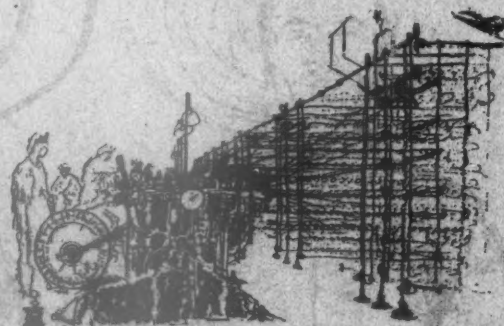


*Meridian Gate, Imperial Palace, Peking.*

for 'the ephemeral and fleeting beauty of present-day life' that distinguished Guys: in his acute awareness of the problem of finding occasions to 'rise to', Hogarth betrays his modernity, and in his attempts to find a solution discloses a romantic flair for reporting on inaccessible regions. But on his recent visit to China, where he has, I think, done his best work to date, he found in its fervent building programme a simple and natural symbol

of man's constructive energies which enables him to use his sensitive topographical draughtsmanship purposefully, but without symbolical and propagandist gesticulations.

He went through Russia to China, but could not stay long enough to make many drawings: he was allowed to go into North Korea, but was too shocked by the human wreckage and the endless vistas of devastation to be able to turn his visit into a scoop, and his distant, melancholy view of the new sky-line rising at Pyong-Yang, taken from a spot which overlooks what used to be the busy waterfront section, admirably summarizes his mood.



*In a new textile mill.*





*The old revolutionary: 73 year-old Huang-Yeng, who fought in the 1927 Canton Commune and was a seaman in British Army transports in the 1914-18 war.*

*Banana workers in South China, near Canton.*



*A Shanxi peasant.*



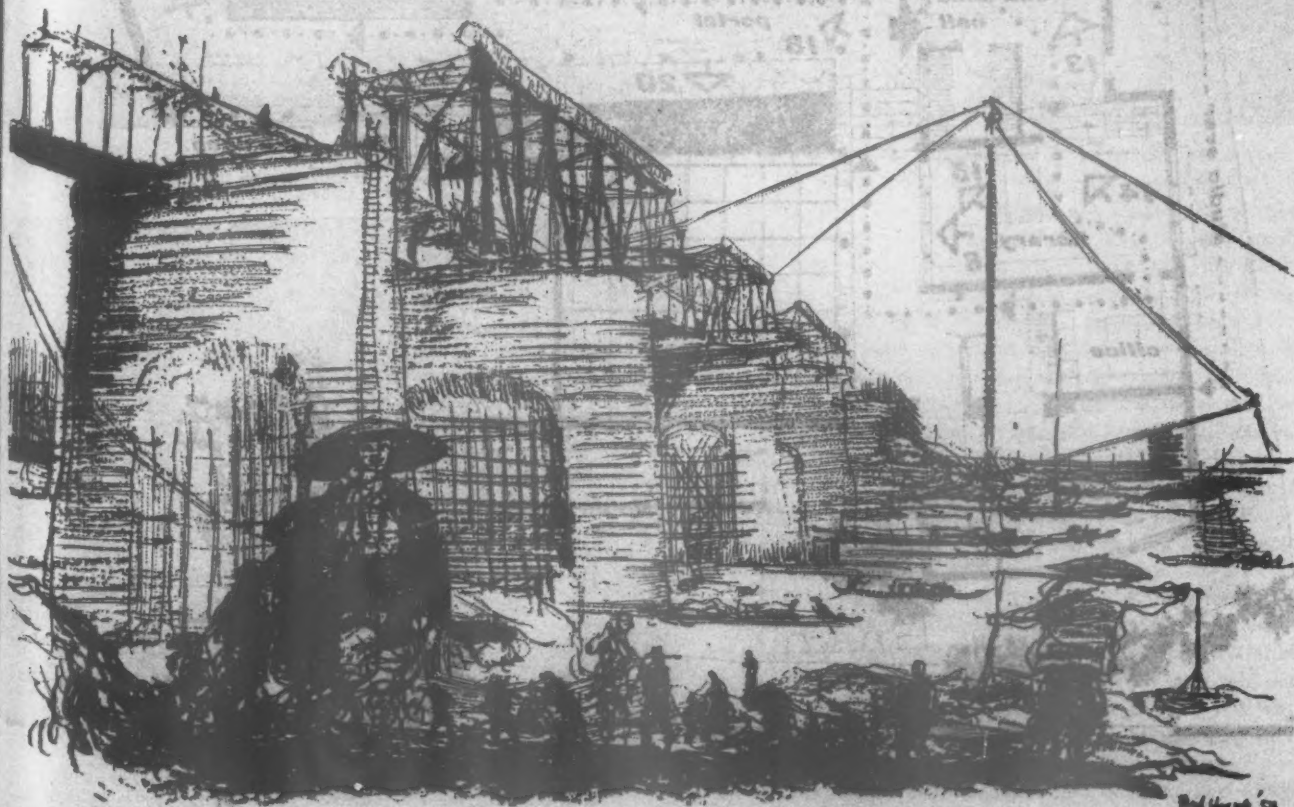


Shanghai from off-shore.

The atmosphere in the drawings of China is altogether different. His line is neither adroit nor particularly vigorous, and his composition, though far from being unstudied, rarely depends upon dramatic effects (the heroics of the fluttering banners in his drawing of volunteers making a new park is the exception rather than the rule), and it is the peculiar excellence of this set of drawings, made in many different parts of China at the end of long, exhausting journeys, that the optimism and exuberance of the people seem to emerge of their own accord.

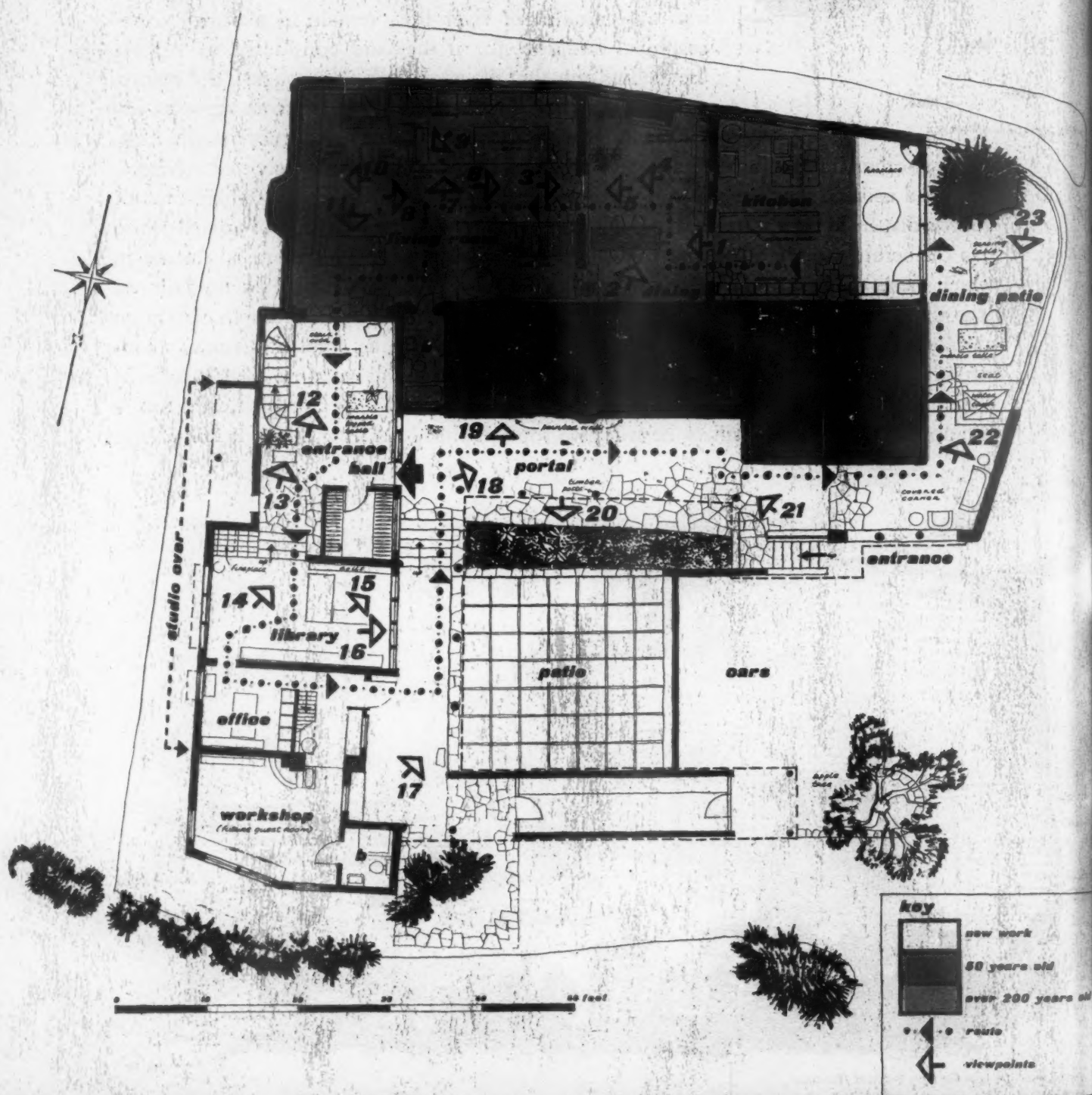
One cannot fail to notice that the finest of these drawings—the studies of river life—remain in a purely topographical tradition, for if they are considered as reports they tell us only that life goes on there much as it did before, and I take it that such a message is far from representing Hogarth's reasons for undertaking his journeys to the East.

From another standpoint they also give much pleasure as studies in uncentred composition, and as such they are not too remote in feeling from Sutherland's watercolours of gourds dispersed over a trellis, but again this is clearly not the intention of an artist who has deliberately undertaken the role of special correspondent. So there is a sense in which these, the best of the drawings from an aesthetic point of view, are partial failures. It is the work in which he has been prepared to lose something in order to obtain an extra-pictorial response from his public, the work in which he emblemizes man's constructive energies without having made a fully satisfying visual response to the scenes in which he perceives it, that Hogarth himself values most, and if he manages in the future to emblemize without sacrifices he will give topographical drawing a new *raison d'être*.



Railway bridge over the Han River at Hankow.

Alexander Girard's house at Santa Fé is one of the most subtle and complex of recent American attempts to integrate modern architecture with strongly characterised local conditions. New work has been grafted on to existing traditional structures—shown in the plan below, as is the route of the viewpoint-tour followed by the photographs on the following pages—materials, furniture and décor mate modern and traditional, adobe walling with Eames chairs and local popular art, and the use of patios serves to adapt modern modes of living to a desert climate. But the patio has its uses in other climates, and on page 86 will be found a house in Hampstead with a first floor patio—different in aspect and intention, but still sufficiently like Girard's in function to be compared with it on the front cover.





# HOUSE AT SANTA FE

ARCHITECT | ALEXANDER GIRARD



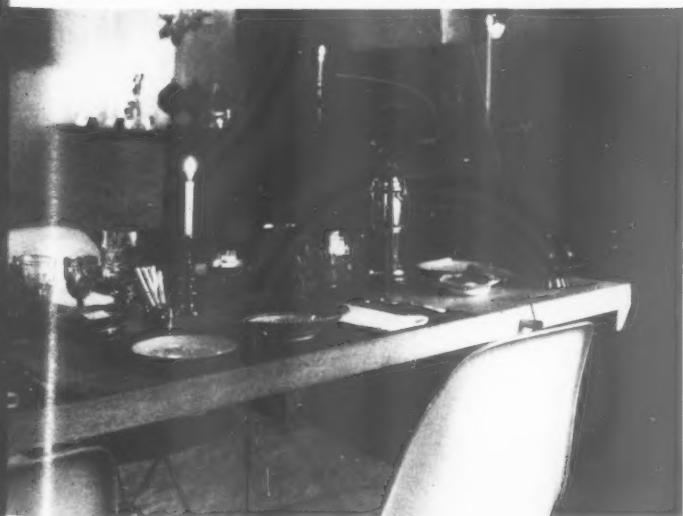
1

The photographic tour of the house begins from the kitchen, looking out into the dining-room, 1. The living-room is beyond. The dining-room table . . .

The house stands on a hillside in the perimeter of Santa Fé, New Mexico, in a plot approximately one hundred feet square, amidst a background of pinon trees (dwarf pines), cactus, wild flowers, and reddish rock. The central portion, which once took the form of two small 'box' houses, and is more than two-hundred years old, is built of 'adobe' (sun-dried mud-block), and roofed with unfinished logs, tarred over. About fifty years ago two portions, also built of 'adobe', were added to the south, and a further addition was made still later of pumice block construction. The recent additions consist of the following: extensions to the kitchen, an entrance hall connecting pre-existing buildings with the new north wing, the studio and workrooms on the first floor, the patio, and extensive remodelling and redecoration throughout both interior and exterior.

The walls are built on 'field stone' foundations, which are left exposed, whereas all other exterior surfaces are plastered and painted natural adobe colour (pinkish raw umber). Most floors are paved in natural, dark-reddish stone. Walls are everywhere painted flat white, except in the dining room and on the south wall facing the patio which have murals of brilliant colours.

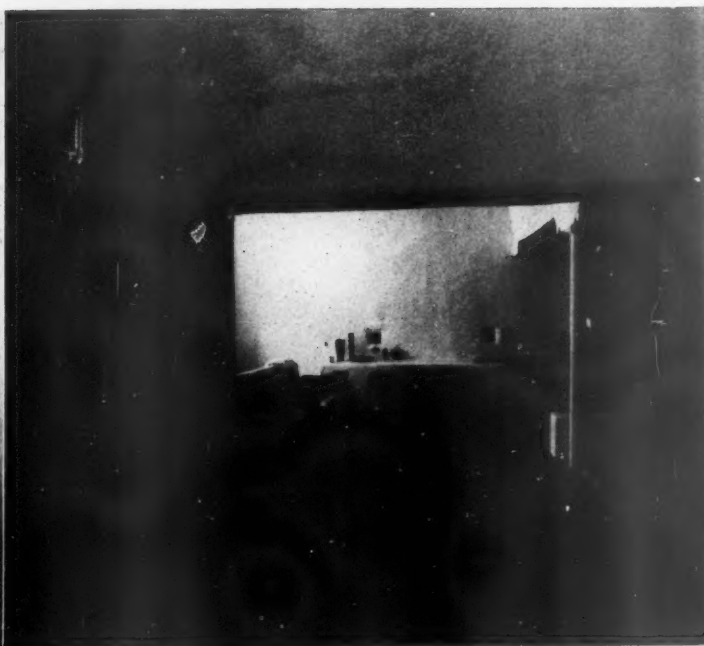
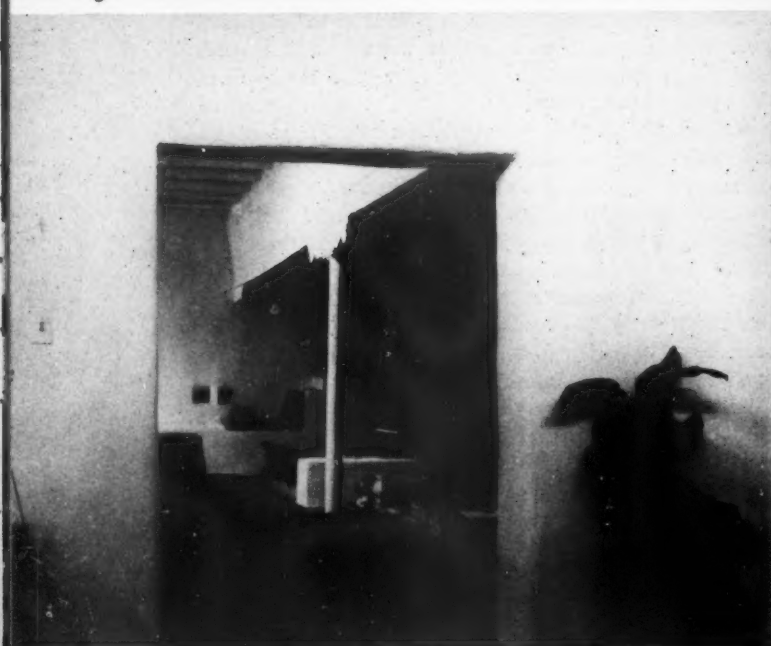
The newly created entrance hall contains two comple-

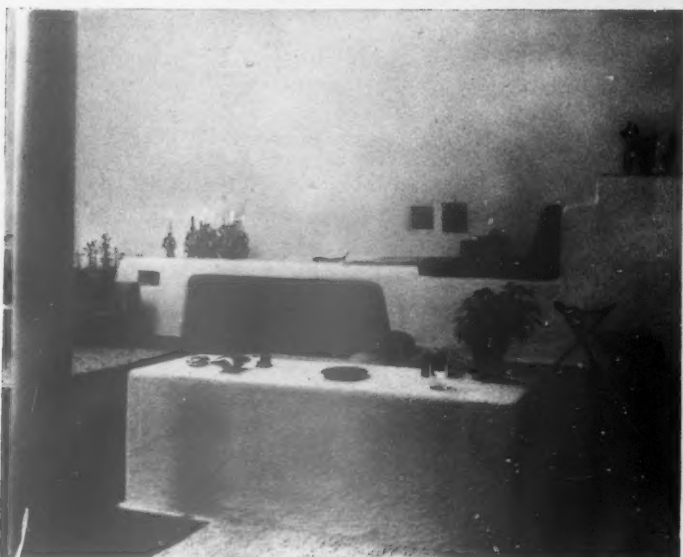


2

. . . made of pine-board is suspended on nylon-coated cable stretched from floor to ceiling, 2; this was made necessary by the unevenness of the floor. The Eames chairs are white.







3, dining-room wall from the living-room, painted in pinks, reds and blues by Girard himself. Among the objets under the side-board are two Guatemalan chests and a Sicilian cart side-piece. Candle sconces are of Bohemian glass. 4, 5, living-room from dining-room; pillar and beams were pre-existing. Masonry table (back-rest to floor mattress seat) and fire-seat, 9, are new. 6, 8, high part of living room opposite fire-place, with a George Nelson lamp in right aperture; wall of oldest house right, with door to master bedroom. 7, low part of living-room and open storage-display wall.

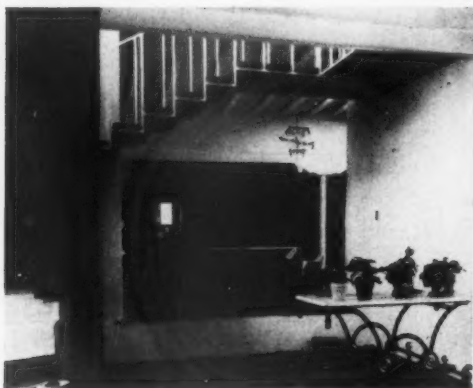
mentary flights of cement steps to the upper floor, one on either side of the hall, separated by a white-painted steel bridge section with wooden steps. The living room has been provided with seating of different types; there being as little conventional (movable) furniture as possible. There is a masonry table to provide the back for a floor seat. Display cases cover the entire north-east wall, allowing for the arrangement of objects in depth and with indirect lighting. Wood is painted dark raw umber. The mural painting on the south-west wall of the dining room is seen framed in the bare openings from the living room. The dining table, which is of pine board and suspended from floor to ceiling on nylon-coated steel cable, is completely stable, the unevenness

# HOUSE AT SANTA FE



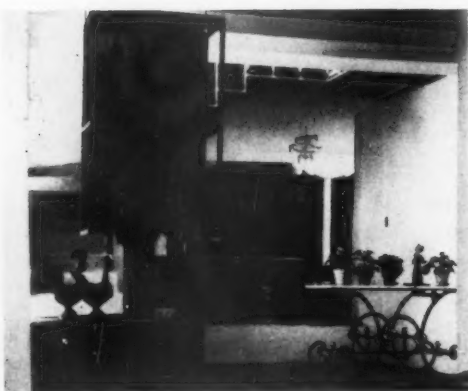
10

10, living-room fire-place. 11, entrance from living-room; behind staircase is pink panel, centre, and a painted wooden grill, right.



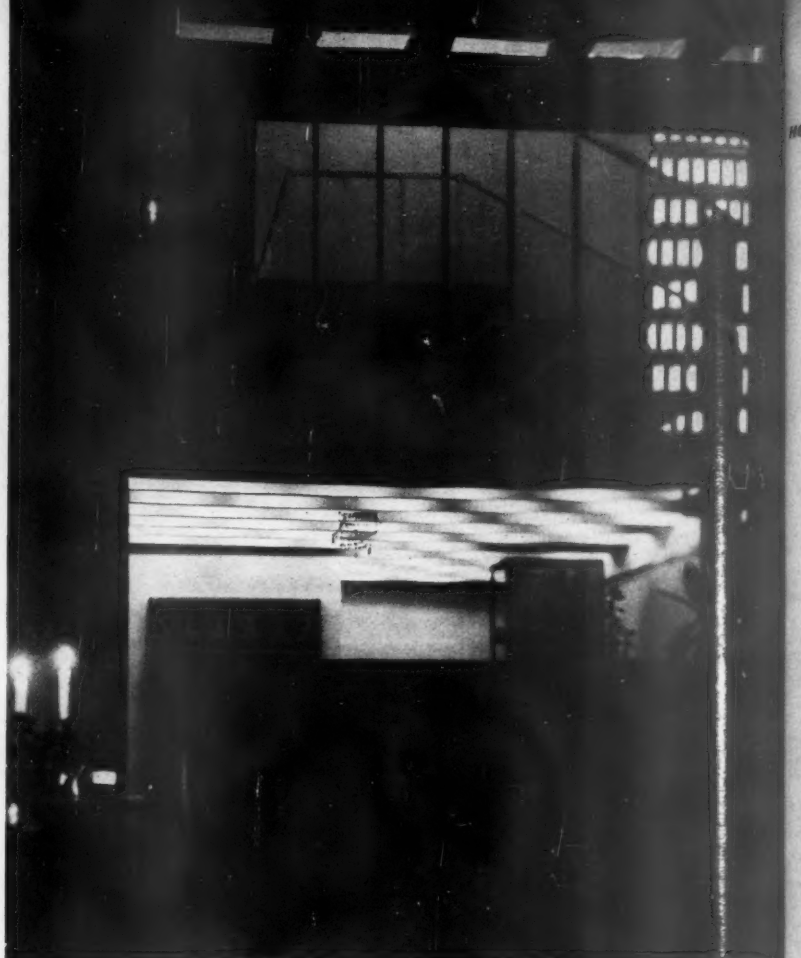
12

12, 13, 14, all show hall from library, with pinkish local stone floor, and French butcher's table. The case on left contains East Indian puppets.



13

On the right in 14 are Katchina figures by the Hopi of Arizona, and the delicate object hanging in front of the pillar is a Tibetan devil trap.



11



14



15, from library looking on to stairs from lower to upper "portal" (loggia); the back wall of the upper portal, painted in brilliant colours, contains the window of master bedroom. 16, view from library window, with an Eames desk in left foreground. 17, view from lower to upper portal, 18, 19, detail of same with painted panel by Girard.

of the floor making legs unsatisfactory. Unevenness of wall and floor surfaces again led to the 'suspension' of the storage cupboards in the kitchen from steel posts. These cupboards are of pine plywood, with doors of chopped wood stable laminate. A screen wall of perforated hardboard provides for hanging of kitchen tools.

Inside circulation is entirely free from doors from the kitchen right through to the north-east workshop. The small windows and enclosed, viewless quality of the main living space are an agreeable relief to the very broad and dramatic exterior views presented by the surrounding country. Sunlight is so powerful that a pinhole could produce almost sufficient illumination. No colour schemes are used; colour appearing solely as accent, since the whole interior is white. The *Katchina* figures in the library are made by Hopi Indians.

Outside, the patio is divided into squares by means of 2 in. by 4 in. wood strips. The limited planting space so provided is suitable to the arid climate. Some of the squares are filled with local stones; one contains a small water tank. Both of the two portals, upper and lower, are designed to provide variously exposed shelter for sitting out of doors in different seasons.

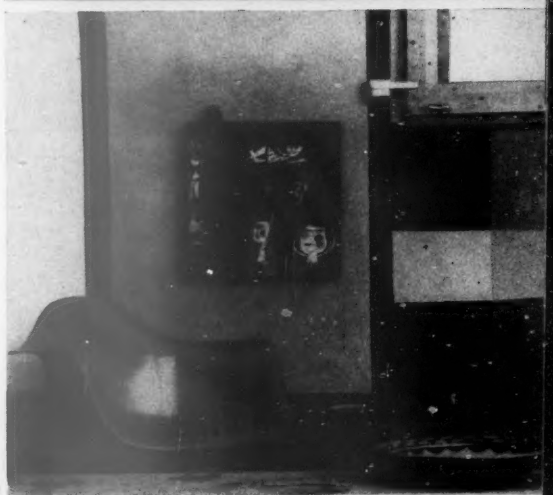
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17



18



19

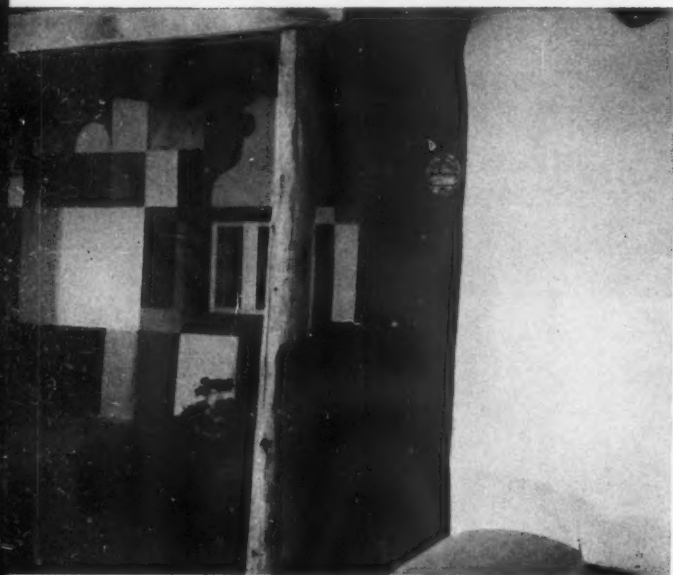


# HOUSE AT SANTA FE

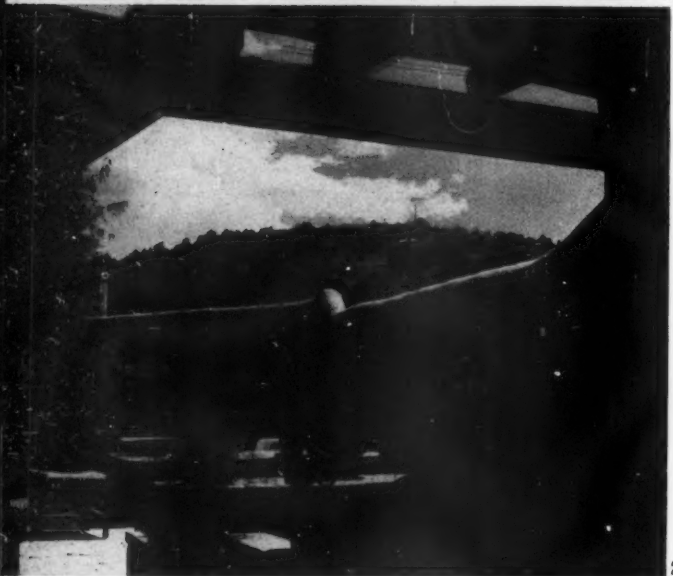
20, mosaic of squares in patio, 3ft. x 3ft., some planted, others paved, which appears on the cover of the issue. 21, protected west corner of upper portal. 22, 23, kitchen patio seen from opposite directions together with covered passage and corner of house containing children's bedroom.



20



21



22

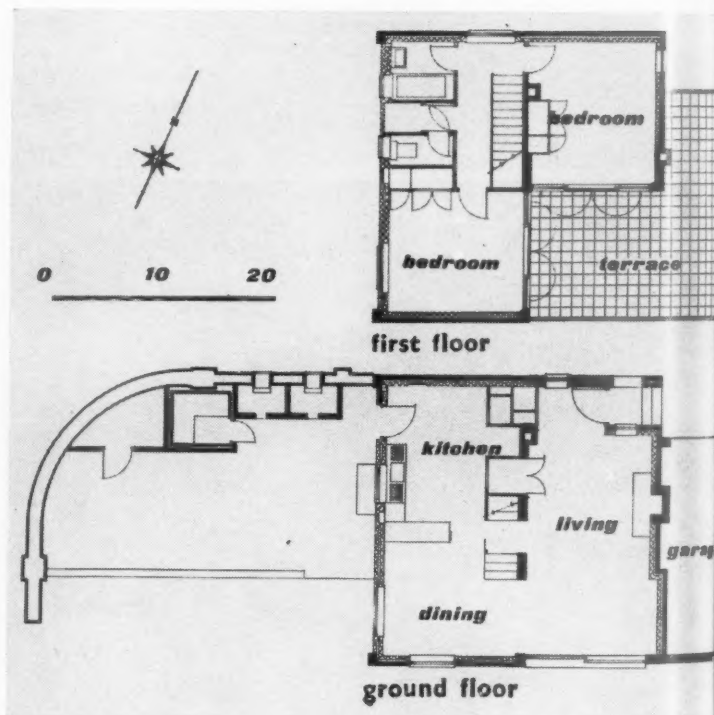


23

# HOUSE IN HAMPSTEAD

ARCHITECT

ALEXANDER GIBSON



1, general view from the garden  
with Cannon Lane running  
behind and old houses opposite;  
small window, bottom right,  
belongs to garage, large windows,  
centre, to living-room.



1

The house has been built on a small site in a quiet lane running down to the west side of Hampstead Heath; the land was part of the kitchen garden of a mid-Victorian house called The Logs, but owing to its position it is seen more in relation to two fine 18th-century houses than to The Logs itself.

The house is for a married couple without children; the ground-floor plan is therefore open with the lightest division between the different parts. As the clients are enthusiastic gardeners some compensation for loss of

ground area has been achieved by providing a roof deck for flower-box gardening. The client's wife required a kiln for firing pottery, to which back as well as front access had to be provided. The house itself will probably have a second house built against it at the garage end, and this was allowed for in the design.

The cavity walls are faced with dark grey flint bricks and with an inner skin of thermalite blocks; the west wall consists of two skins of thermalite to which red hand-made tiles are nailed direct. Panels of red facing



## HOUSE IN HAMPSTEAD

bricks are used at the back of the garage and in the outbuilding.

The roof is of timber joists covered with wall board, screed and three-ply felt; the first floor has timber joists covered with boarding, the roof deck being finished with three-ply felt and asbestos cement paving tiles. The ground floor is solid concrete covered with mahogany blocks and tiles.

Joinery generally is softwood painted: windows, with the exception of the large sliding one in the living room, are based on the LCC Housing Division's modified English Joinery Manufacturers' Association's range. The external screens to the bedrooms have panels framed up in deal with  $\frac{1}{4}$  in. asbestos lining and  $\frac{1}{16}$  in. stone faced steel cladding externally and hardboard internally, the cavities being filled with glass fibre. Sills, thresholds and entrance paving are in slate and the garage forecourt is of granite setts.

The heating is from a forced draught warm-air unit driven by a boiler; this also supplies the hot water and heats a towel rail. The heating is reinforced by an open fire which also supplies warm air to the living room.

The large living room window is double-glazed as well as some of the screen in the main bedroom. Comfortable conditions are maintained during cold weather, with a very small consumption of fuel, owing partly to the high insulation provided in all parts of the building; aluminium foil backed plasterboard is used below the wall board and on the ground-floor ceiling where it comes under the roof deck.

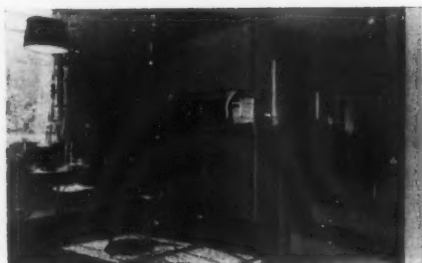
4, living-room with steps at end leading to porch; 5, the same, looking towards garden windows; 6, deal-lined aperture in staircase wall (with cupboard under); 7, opposite, terrace, paved with asbestos cement tiles, showing two bedrooms leading off; 8, galvanised steel trellis covering end of terrace devoted to flower boxes.



4



5



2, dining-room seen across foot of stairs, opening into kitchen beyond.



3, view from kitchen into dining-room, showing serving hatch-cum-crockery cupboard fitting.

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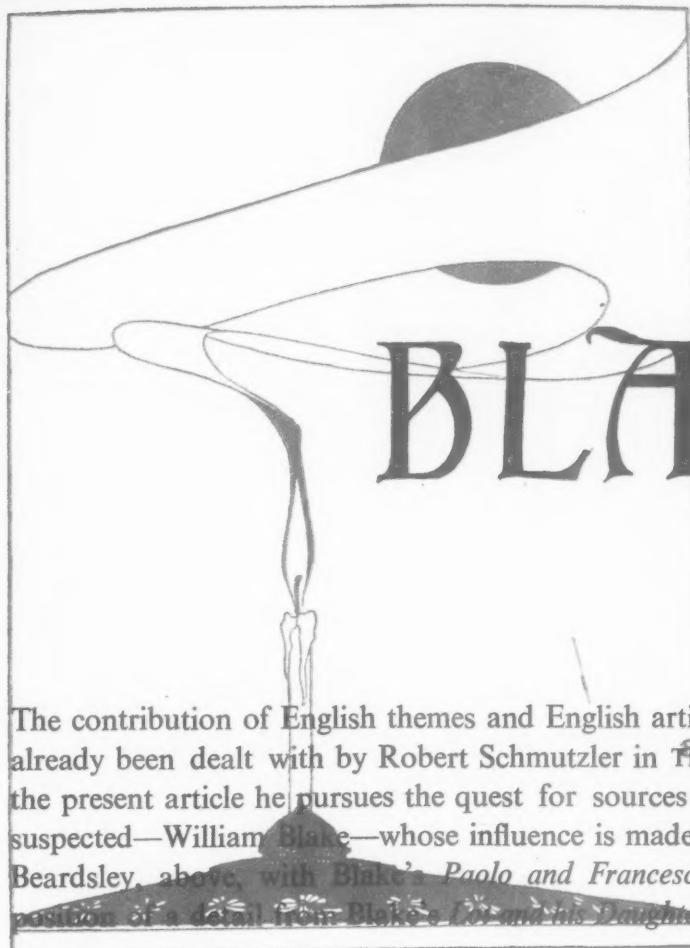
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# BLAKE AND ART NOUVEAU

The contribution of English themes and English artists to the shaping of international Art Nouveau has already been dealt with by Robert Schmutzler in *THE ARCHITECTURAL REVIEW* for February 1955. In the present article he pursues the quest for sources backward to one of the most important and least suspected—William Blake—whose influence is made immediately clear by comparison of the drawing by Beardsley, above, with Blake's *Paolo and Francesca in the Whirlwind*, opposite top, and by the juxtaposition of a detail from Blake's *Lot and his Daughters*, lower left, and typical Tiffany glassware of 1900.

Nothing could be more typical of Art Nouveau than the little-known drawing by Beardsley which is placed at the beginning of this article.<sup>1</sup> Its chief characteristics are a rocking, soaring, undulating line filling part of the page surface and leaving plenty of it bare. It is a flowing, a flaming line, yet in its movement not dynamic, and it never abandons one flat plane. It is as emphatic in its asymmetry as other Art Nouveau manifestations may be in stressing symmetry—the emphasis as such is what counts.

What are the sources of these qualities in Beardsley and Art Nouveau? How far can they be traced back? The first of these two questions I have tried to answer in my article last February,<sup>2</sup> and the answer was Rossetti and Whistler, and those who followed them in the eighties and about 1890, Mackmurdo, Heywood Sumner, Charles Ricketts. The second question was left open. It must find its answer now. For in fact the very long sinuous asymmetrical line of Beardsley and Art Nouveau<sup>3</sup> cannot be explained either by Rossetti or by Whistler. Both Rossetti and Whistler, in spite of the planeness and weightlessness of their most pre-Art-Nouveau looking drawings, paintings and designs, keep to compact volume, to the material solidity of colour, that is to a tangible presence. In Beardsley all that has evaporated. Was that then entirely his own innovation?

<sup>1</sup> Published previously only once, in the *Insel-Almanach auf das Jahr 1906*, Leipzig.

<sup>2</sup> *THE ARCHITECTURAL REVIEW*, Vol. CXVII, 1955, p. 108-116.

<sup>3</sup> 'The leitmotiv of Art Nouveau,' says N. Pevsner, *Pioneers of Modern Design*, New York, 1949, p. 65.

The answer is No, and the real innovator turns out to be a genius, a hundred years older than Beardsley: Blake. We can take any page from the *Songs of Innocence* of 1789, and the affinity is at once established, however much more body the undulating flames or blades of Blake's framework to his poems may possess.<sup>4</sup> Even more curious because less expected is the relation of our Beardsley drawing to Blake's *Paolo and Francesca in the Whirlwind of Lovers*, frontispiece. This airy ribbon, this fiery, hose curls and twists its way just as regardless of the possible in nature, just as weightlessly, just as flatly—and even the loop of Beardsley, revealing the black moon, reappears in Blake's whirl.

Nor is Beardsley's relation to Blake an exception. Time and again, amongst those in the English Arts and Crafts who established Art Nouveau, the same dependence on Blake can be felt. Our next comparison may be one between a leading German designer of Art Nouveau and Blake, and between two emphatically symmetrical compositions. The title-page by E. R. Weiss, 2, of 1899, and Blake's *Christ ministered to by Angels*, 1, of 1807 or 1808 have all essentials of design in common. The two angels below are like a shallow bowl from which rise the two other angels in their ogee-shaped contours holding tiny lyres of cornucopia outline, and Christ, a more substantial figure, but also circumscribed by long shallow symmetrical curves. Cornucopia and

ogee are amongst the forms of which one is reminded, and the whole pattern might be compared to a lyre or a fleur-de-lis. It need hardly be said that the Art Nouveau designer has removed all that was concrete in Blake, has carried simplification to excess and removed what in the curves of the lower angels and of Christ was still alluding to a second plane in front of the principal one. The result is a deeper more human art in Blake, and a certain emptiness in Weiss.<sup>5</sup>

When Blake is purely ornamental, such allusions to real space disappear. An example is the *Cradle Song* from the *Songs of Innocence* of 1789, 3. Written images and calligraphy are here indivisibly united. Against the trellis of uprights and horizontals established by the script the gentle play of flame-lines seems to curl arbitrarily. If this page is placed next to a similar page from a book of 1895 by Theo van Rysselberghe, 4, the pointillist painter, Blake appears almost *plus art nouveau que l'art nouveau*. Van Rysselberghe is more precise, more measured, more transparent. In Blake we feel we are watching protoplasm first assuming shapes.

Blake's greatest innovation in his early books was the merging of poetry and painting, of text, ornament and often figures. The text designed in something between drawn type and script<sup>6</sup> has in every detail

<sup>5</sup> 'We have a language of ornament and yet nothing to say,' wrote Voysey in *The Studio*, 1893 (quoted in the catalogue of the Zurich Exhibition 'Um 1900, Art Nouveau und Jugendstil', Zurich, 1952, p. 24).

<sup>6</sup> On the technique of Blake's prints and books see Geoffrey Keynes, *William Blake's Engravings*, London, 1950, pp. 10-21.

the same character as the lapping curves of the marginal decoration. To aspire to a blend of poetry and painting is characteristic of the whole territory from which Art Nouveau sprang. William Morris is the case that comes to mind at once, because he, like Blake, printed what he had written. And although Crane and Kate Greenaway did not go as far as that, they also had the clearest sense of the unity of the book-page, a sense growing stronger and stronger, as we enter into Art Nouveau proper, for instance with the pages of *Pan*, the German luxury magazine started in 1895.

The interpenetration of various modes of art is a romantic heritage. Rossetti writes poems on paintings, Swinburne one on Whistler's *Symphony in White, No. II*.<sup>7</sup> Swinburne's lines were written on gold tin-foil paper and pasted on the frame of the picture which had its pre-Art Nouveau patterns.<sup>8</sup> And Whistler's own titles are borrowed from music: *Nocturne*, *Symphony*, *Scherzo*, etc.

So far my Art Nouveau examples have all been from the art of the book. But Art Nouveau was as fertile in craft as in illustration, and Blake seems at first out of the question as a source for the glass-blower or the cabinet-maker. Yet, even there, if only one looks carefully amongst the rare furnishings in Blake's watercolours, one can make discoveries. Not that direct influence can be assumed, but the affinity remains surprising. There is for

<sup>7</sup> T. R. Way and G. R. Dennis, *The Art of Whistler*, London, 1903, pp. 27-29.

<sup>8</sup> The picture in the Tate Gallery has now a different frame. The original frame is illustrated in Pennell's *Whistler* with the poem stuck on.



1

The essentials of these two symmetrical compositions, 1, Blake's Christ ministered to by Angels, 1808, and 2, a title-page by E. R. Weiss to a book of poems by Rilke, 1900, are the same. Blake's *Crane Song*, 3, from the *Songs of Innocence*, 1789, and a similar page from a book of 1895 by Theo van Rysselberghe, 4, make Blake seem almost more Art Nouveau than the Art Nouveau.



2



3



4

instance the tall flower-like jug on the table in *Lot and his Daughters*, (frontispiece, bottom left). Does it not look as if Tiffany must have thought of it in some of his vases? (frontispiece, bottom right). To take a second example, Adam and Eve in one of Blake's illustrations to Milton's *Paradise Lost*, 5, sit on a flowery chair remarkably similar in design to Mackmurdo's Sign of the Century Guild, 6. Are such similarities accidental? Did Mackmurdo know Blake, did Beardsley, did Beardsley's immediate forerunners in the Arts and Crafts, did Mackmurdo's forerunners, did Whistler and Rossetti? It is for the historian of art to answer this question, and he has not so far done it sufficiently.

Rossetti as a boy of eighteen and nineteen admired the Songs of Innocence and the Songs of Experience and looked round for Blake originals. In 1847 he was offered the Blake Note-Book now known as the Rossetti Manuscript.<sup>9</sup> What attracted Rossetti first of all was Blake's peremptory epigrams against Correggio, Titian, Rubens, Rembrandt and Reynolds. They were 'balsam to Rossetti's soul and grist to his mill.'<sup>10</sup> He bought the book and his *Blessed Damozel* of 1847 is indeed clearly influenced by Blake's poetry.<sup>11</sup> Amongst Rossetti's paintings *The Girlhood of Mary Virgin* of 1849 with its verses carved into the specially designed frame is equally influenced by Blake's drawings. Rossetti's brother, William Michael, wrote that Dante Gabriel's 'ownership of this volume conduced to the Pre-Raphaelite movement.'<sup>12</sup> The two brothers got in touch with Alexander Gilchrist who was writing the life of Blake and examined the few collections in which at that time almost the whole oeuvre of Blake was still assembled. William Michael compiled the Descriptive Catalogue for Gilchrist and after Gilchrist's death concluded his book and edited it in 1863 with the subtitle 'pictor

ignotus.' Many illustrations in facsimile and photolithography are inserted, and many vignettes added, details of flames, clouds and hovering spirits. Especially in the fifties and sixties motifs are taken over from Blake by Rossetti. To refer to only one case here, the angel in one of the illustrations to Milton, 7, recurs with few changes in Rossetti's *Michael Scott's Wooing*, 8.

Through Rossetti his Pre-Raphaelite friends made Blake's acquaintance. 'The age is visited by Blake, just because Rossetti has discovered Blake.'<sup>13</sup> So Blake's effect now was twofold, direct and indirect by way of Rossetti's works. Take as an example Millais's design, 10, for a Gothic window.<sup>14</sup> Must these symmetrical arabesques of floating loosely connected figures not be the reflection of a knowledge and understanding of such Blake drawings as the Angels hovering over the body of Jesus, 9? Similar dependences can be found in Holman Hunt, 11 (1857),<sup>15</sup> in Boyd Houghton (1863-65), 12, and Arthur Hughes (1871) 13.<sup>16</sup> In 1867 James Smetham published an essay on Blake which was reprinted in 1880 in the second edition of Gilchrist's book, and Rossetti said of Smetham as a painter that 'he partakes greatly of Blake's immediate spirit.'<sup>17</sup> Burne-Jones shared Rossetti's enthusiasm, and we hear that in his later years he had Blake read to him while he painted.<sup>18</sup> The

<sup>9</sup> Jakob Walter, *op. cit.* p. 7.

<sup>14</sup> A. proposes this romantic Gothicizing of Millais it might be worth referring to the mixtures of Gothicizing and Classicizing in Philipp Otto Runge's works of about 1800 which result in formations reminiscent both of Blake and Art Nouveau. Schinkel also can be Gothic or Classical, but the two remain separate alternatives. For the Werder church in Berlin, e.g., he made designs in both styles over the same plan. The English-Late Gothic design was carried out. Oscar Wilde comments on the co-existence of Classicism and Gothicism in Walter Crane ('The best books to give away,' in *Complete Works of Oscar Wilde*, New York, 1916, The Prose, pp. 523-24).

<sup>15</sup> *Mozon's Illustrated Tennyson*, London, 1857, p. 67.

<sup>16</sup> See for instance the Hughes illustrations in Walter Crane's *Of the Decorative Illustration of Books, Old and New*, London, 1896, pp. 202, 304, etc.

<sup>17</sup> Robin Innes, *The Pre-Raphaelite Painters*, London, 1948, p. 26.

<sup>18</sup> Lady Burne-Jones, *Memorials of Edward Burne-Jones*, London, 1904, Vol. 1, p. 231, Vol. 2, pp. 290, 343.

whirlpool through which we follow Orpheus, 15, and which like Decorated tracery curves into the tondo shape of the picture is smoother and milder, but all the same in an unmistakable relation to Blake's *Then the Lord answered Job out of the Whirlwind*, 14.

Swinburne's book on Blake was finally concluded in 1868. Binding and title page were decorated (and handcoloured) by pastiches of flames and small figures from *Jerusalem*, and in his text the phrase of Blake's 'flameline impulse of idea'<sup>19</sup> occurs. The stimulus once again came from Rossetti. 'Without him Swinburne could not have written his brilliant essay . . . and without this essay Blake would not have become the idol of a whole group of poets and writers.'<sup>20</sup> From that moment interest in Blake indeed grew rapidly, and apart from the man and the poet, the painter was now appreciated.

Walter Pater in the foreword to his *Renaissance Studies* of 1873 quotes Blake.<sup>21</sup> William Michael Rossetti published a book on him in 1874, and Comyns Carr, the initiator of the Grosvenor Gallery, where Whistler and Burne-Jones held their exhibitions, wrote extremely sensitive and convincing articles on Blake in the *Cornhill Magazine* and in *Belgravia* in 1875 and 1876. Originals were owned by Ruskin, by Herbert Horne, and by Disraeli.<sup>22</sup>

From the fifties most of Blake's illuminated books and a few water colours were available in the Print Room of the British Museum, from 1868 an unbroken sequence of facsimile editions of the illuminated books carried on, culminating between 1884 and 1890. The first Blake Exhibition was held by the Burlington Fine Arts Club in 1876—with 333 items—and two years earlier the 537 water-colours to Young's *Night Thoughts* had been acquired by a London bookseller, James Bain. He did not want to sell them and rather kept them exhibited in his shop in Haymarket as an attraction for customers.<sup>23</sup>

When in 1880 a new edition of Gilchrist's *Life* became necessary, Frederick Shields designed the binding, 17, after a Blake water-colour in the Rossetti Manuscript, 16, (which incidentally later turned out to be by Robert, William's brother, who died young in 1787). Now Shields a little later appears as one of the collaborators of Mackmurdo, and one or two years after the publication of this new edition of Gilchrist Mackmurdo began to design those mysterious pieces of furniture, 18, 19, in which Art Nouveau for the first time seems to be with us. In 1892 Mackmurdo founded the Century Guild, and 1893 is the date of that famous cover to his book on Wren's Churches, 20, which Professor Pevsner has placed at the beginning of Art Nouveau—ten years before Horta—and which now turns out to be a variation on a favourite theme of Blake's. The frontispiece, 21, of the first issue of the *Century Guild's Hobby Horse* (1884), edited by Mackmurdo, Selwyn Image and Herbert Horne is so obviously a pastiche of Blake motifs that the reviewer in *The Studio* called attention to the fact.<sup>24</sup> On the pages are

<sup>19</sup> A. C. Swinburne, *William Blake*, London, 1868, p. 75.

<sup>20</sup> Jakob Walter, *op. cit.*, p. 7.

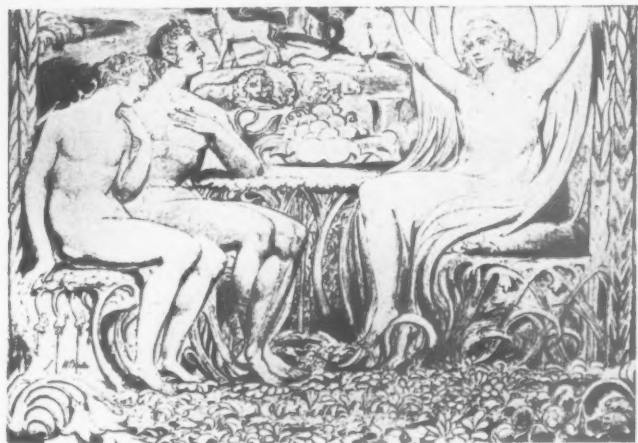
<sup>21</sup> P. x.

<sup>22</sup> Geoffrey Keynes, *A Bibliography of William Blake*, New York, 1921, p. 18.

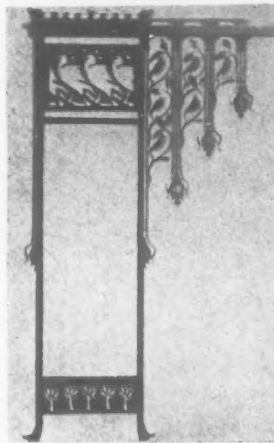
<sup>23</sup> Geoffrey Keynes, *Illustrations to Young's Night Thoughts . . . by Blake*, Cambridge, Mass., 1927, introductory essay.

<sup>24</sup> Vol. xiv., 1898, pp. 1-10.

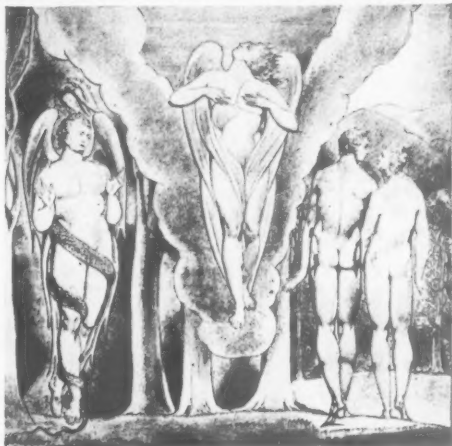




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Adam and Eve in one of Blake's illustrations to *Paradise Lost*, 5, sit on a flowery chair similar to Mackmurdo's sign of the Century Guild, 6. The angel in another of the *Paradise Lost* drawings, 7, recurs little changed in

Rossetti's *Michael Scott's Wooing*, 8, Millais' design for a Gothic window, 10, reflects an understanding of such Blake drawings as the Angels hovering over the body of Jesus, 9.

Similar dependences are noticeable in Holman Hunt's illustration for *The Lady of Shalott* in Mozon's 1857 edition of Tennyson's poems, 11; in A. Boyd Houghton's *Princess Parizade with the Singing Tree* from Dalziel's *Arabian Nights* of 1863-4, 12, and Arthur Hughes' illustration to Grace Macdonald's *At the back of the North Wind*, 13.

11



12



13







14



15

BLAKE AND THOMAS



16



17

18

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20



Burne-Jones' pencil drawing in his Orpheus and Eurydice series, 15, is unmistakably related, in its whirlpool winding about the figure, to Blake's Then the Lord answered Job out of the Whirlwind, 14. The drawing of the King and Queen of the Fairies, 16, after which the cover for the second edition of Gilchrist's *Life of Blake* was designed by Frederick Shields in 1880, 17, was by William Blake's younger brother Robert. The flower motif in the pieces of furniture, 18, 19, and the cover to a book on Wren's churches, 20, all by Mackmurdo, is derived from a favourite Blake theme. The frontispiece, 21, to the *Century Guild's Hobby Horse*, edited by Mackmurdo and Horne, 1884, by an anonymous artist, is an obvious pastiche of Blake motifs. The flame-flower of *Infant Joy*, from the *Songs of Innocence*, 22, clearly inspired Mackmurdo's cretonne design of 1885, 23; and Walter Crane's tiger lilies, 24, bear witness to Mackmurdo's influence if they do not go back direct to Blake, as does Ricketts in the two wood-cuts from *The Dial*, 25, 26, and an illustration for Wilde's *The Sphinx*, 1854, 27.

21



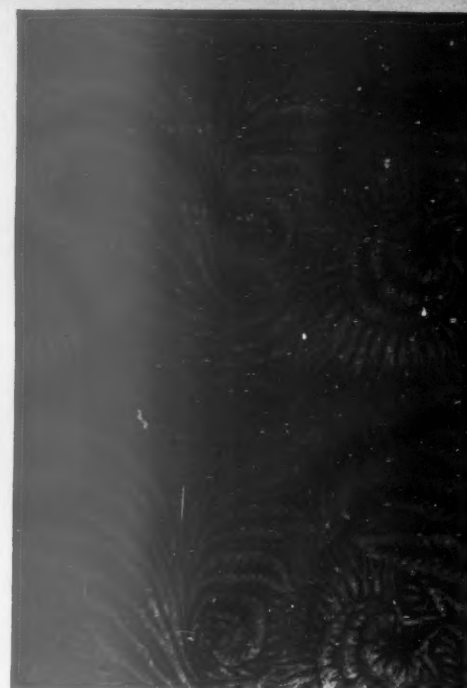
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23



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27





28

Blake influence shows in the timid Art Nouveau of Laurence Housman's illustration to his fairy tales of the 1890's, 28.



29

A very remarkable and not previously noticed dependence is that of the Glasgow School, as in the symmetry of Frances Macdonald's water colour, A Pond, 29.



30

... and in C. R. Mackintosh's Diploma of 1893, 30, with its central frontal figure and outstretched arms.



31



vignettes derived from Blake's *Virgil* and in a review of a big exhibition of English art Mackmurdo exclaimed: 'Will our reader believe it? Neither Blake nor Rossetti has place or name in this exhibition.'<sup>25</sup> Shields contributed a drawing of Blake's Workroom and Death-room.<sup>26</sup> That was in the first number. In the second number Horne in writing on Inigo Jones refers to Blake<sup>27</sup> and a facsimile of the broadsheet of *Little Tom the Tailor* is added, and in 1887 a facsimile of the *Marriage of Heaven and Hell*. A comparison of a flame-flower of Blake's, 22, with a textile design of Mackmurdo's, 23, may complete this chapter.

The influence of Mackmurdo in these years is patent. Where, if not from him, could Walter Crane have

<sup>25</sup> *The Century Guild Hobby Horse*, 1884, No. 1, p. 100.

<sup>26</sup> *Ibidem*, p. 242.

<sup>27</sup> *Ibidem*, 1886, No. 1, p. 139

derived his *Tiger Lilies*, 24—or ought one go back once more direct to Blake?

The *Dial* followed the Hobby Horse in 1889. In the very first number there are wood-cut vignettes by Ricketts, 25, 26, which can only come from Blake. That Ricketts knew Blake well, is evident from a Blake quotation in the second number on which he critically commented. Blake had said that in his poetry he only copied his visions which even in their form were ready when he received them 'organized and minutely articulated beyond all that the mortal and perishing nature can produce.'<sup>28</sup> Ricketts denied the truth of this. 'To copy, even from a vision, is not to create. Blake made this mistake, speaking as though a picture was a literal rendering of a vision, in which the technique

<sup>28</sup> L. Binyon, *The Drawings and Engravings by William Blake*, London, 1922, p. 7.

already existed.'<sup>29</sup> These were the years when Mallarmé stated that a poem is made of words not of thoughts. Ricketts may have been critical of Blake, as an artist he was not for that reason any less influenced by Blake's designs, 27. In 1889 also C. R. Ashbee had a cabinet made by his Guild of Handicraft which was inscribed with passages from Blake's *Auguries of Innocence*.<sup>30</sup> Laurence Housman in 1890 showed a wood-engraving after a Blake painting<sup>31</sup> at the Exhibition of Arts and Crafts, wrote an essay on Blake in the same year, edited some works of Blake in 1893 and illustrated his fairy tales of the early nineties, 28, in a timid kind of Art Nouveau

<sup>29</sup> T. Sturge Moore, *Charles Ricketts*, London, 1933, Introduction.

<sup>30</sup> Victoria and Albert Museum, *Catalogue of an Exhibition of Victorian and Edwardian Decorative Arts*, London, 1962, p. 82.

<sup>31</sup> Arts and Crafts Exhibition Society, *Catalogue of the Third Exhibition*, 1890, p. 272.

never forgetful of Blake's example.<sup>32</sup> And even Beardsley in the most important years of introspection looked at Blake carefully. The immature drawing of Dante in Exile (1890-91)<sup>33</sup> proves that; an unpublished drawing of 1891-92 is called *The Gathering of the Lily*,<sup>34</sup> and another suggested to Edmund Evans at once its inspiration by Blake's *Piping down the valley wild*.<sup>35</sup> It was only after 1893 that Beardsley created his own Art Nouveau out of the various precedents disclosed in this and my previous paper.

At the beginning and at the end of that paper stood Beardsley designs, and I chose to start this with Beardsley. I could again close it here, if it were not for one necessary postscript.

Much has recently been discovered on the sources of the art of Mackintosh and the sisters Macdonald. Blake has not yet been given the emphasis which here also his work deserves. Early water colours by Frances Macdonald such as *A Pond* (1894), 29,<sup>36</sup> and by Margaret Macdonald such as November 5th, (1894)<sup>37</sup> make no secret of their Blake connection, and Mackintosh's Diploma of 1893 also, in spite of all its personal character, presupposes Blake, 30. One need only mention the strict symmetry, the frontal figure in the middle with horizontally raised arms, and spread wings, the wavy lines interwoven with the figures and forming themselves into an embracing oval, and the relation is evident.

A similar comparison could be made between Blake's *Where the Morning Stars sang together*, 31, and Margaret Macdonald's *Crucifixion*, 32, of 1894. But this comparison could also at once help to summarize the one profound difference between Blake and mature Art Nouveau. Blake's vision represents 'the outer universe as seen with the inward eye of poetic imagination.'<sup>38</sup> At Glasgow they converted it into a wallpaper pattern which could easily be adapted to an all-over repeat. Blake's line and Blake's composition are retained and developed, his meaning is abandoned. All the same, he remains, side by side with Rossetti and Japan, the most powerful source of Art Nouveau.

<sup>32</sup> For instance G. Meredith, *Jump to Glory Jane*, London, 1892; Christina Rossetti, *Goblin Market*, London, 1893; Jane Barlow, *The End of Elfin Town*, London, 1894.

<sup>33</sup> *The Early Work of Aubrey Beardsley*, London, 1912, pl. 16.

<sup>34</sup> A. E. Gallatin, *Beardsley, Catalogue of Drawings and Bibliography*, London, 1946, No. 217.

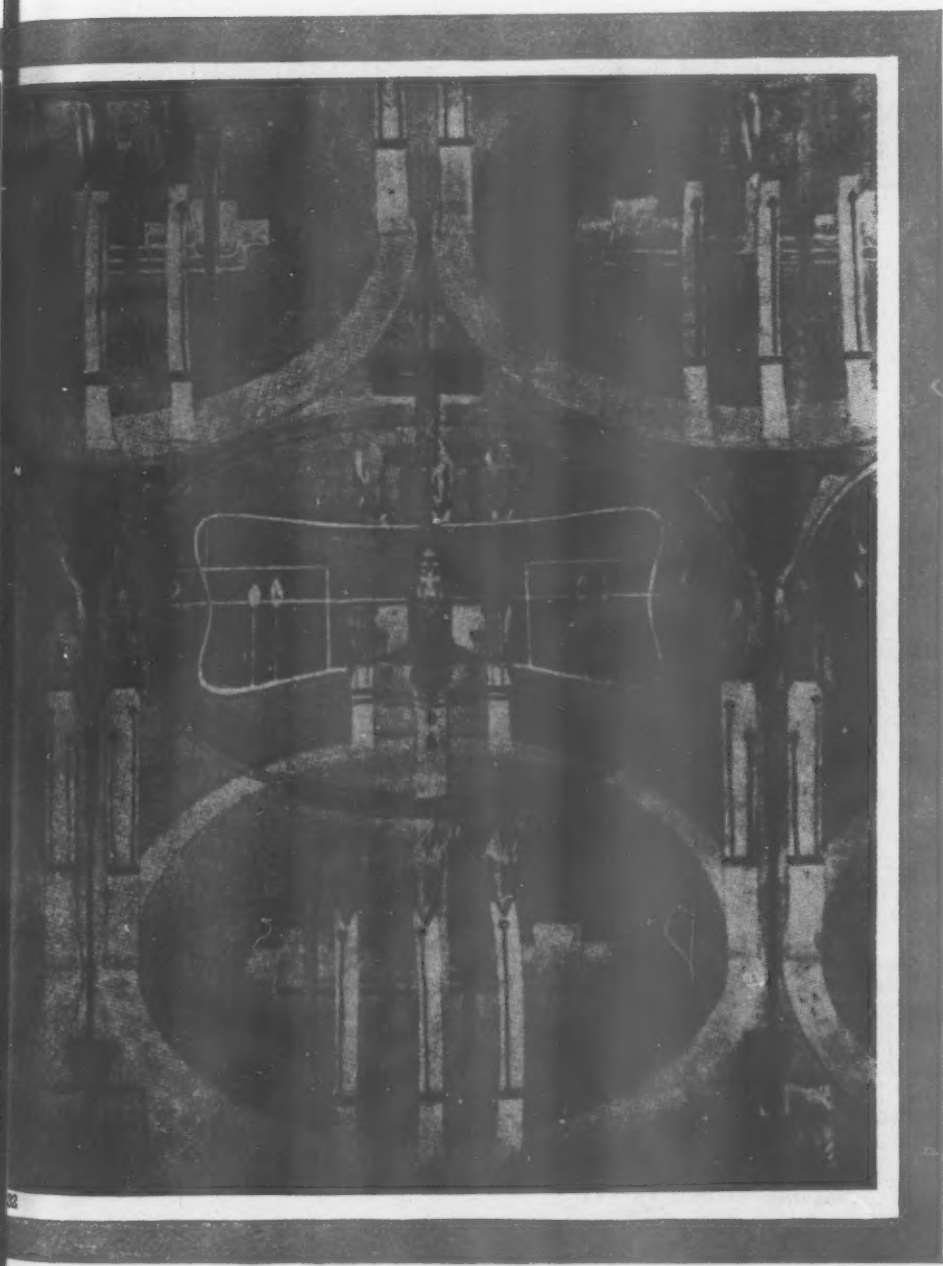
<sup>35</sup> Aymer Vallance, *Reproduction of eleven designs omitted from the first edition of 'Le Morte d'Arthur'*, London, 1927, p. 14.

<sup>36</sup> Thomas Howarth, *Charles Rennie Mackintosh*, London, 1962, pl. 6, fig. A, and pl. 7, fig. B.

<sup>37</sup> *Ibidem*, pl. 6, fig. C.

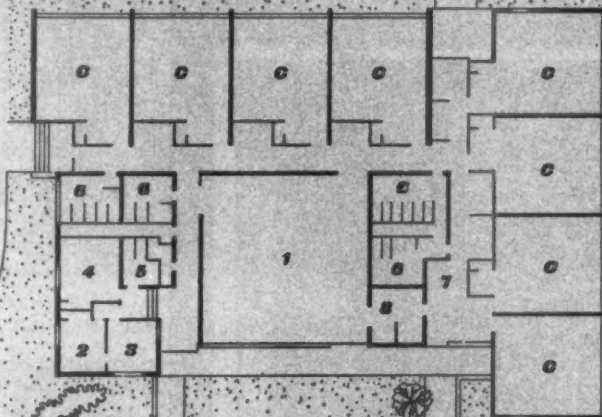
<sup>38</sup> Joseph H. Wicksteed, *Blake's Vision of the Book of Job*, London, 1924, p. 167.

Finally, Blake's *Where the Morning Stars Sang Together*, 31, can compare directly with Margaret Macdonald's *Crucifixion*, 32—in form if not content.



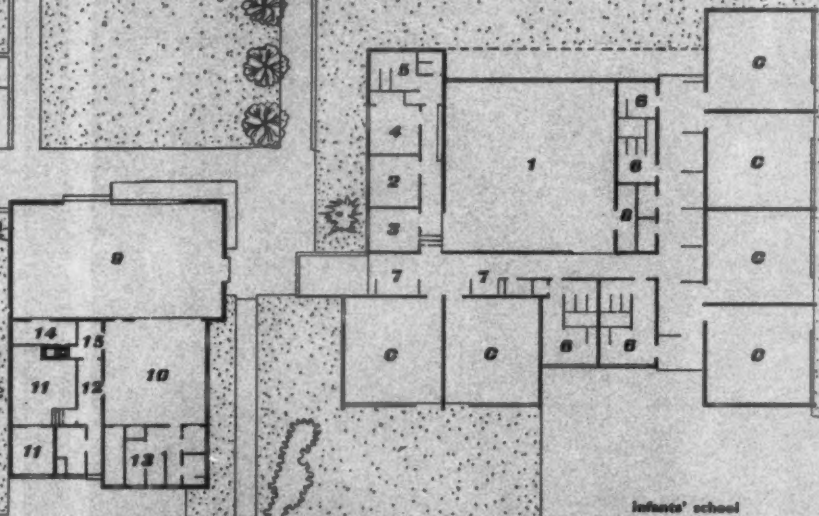
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SCALE OF FEET

SCHOOL AT HARLOW



- key
- C, classroom.
- 1, assembly hall.
- 2, head teacher.
- 3, secretary.
- 4, staff.
- 5, staff W.C.
- 6, W.C.
- 7, cloak.
- 8, store.
- 9, dining-room.
- 10, kitchen.
- 11, butlers and foot store.
- 12, pump room.
- 13, larder and store.
- 14, choir.
- 15, refreshment-room.

junior school



dining block

infants' school







## SCHOOL AT HARLOW

**ARCHITECT**  
**Assistant-in-Charge**

**H. T. OADBURY-BROWN**  
**R. W. Finch**

1, infants' block, showing raised assembly hall roof and outside covered way, seen from south end of juniors' block.



The school is centrally placed in Mark Hall South, between the residential areas of Cooks Spinney, Blackbush Springs and Ladysnot, and was briefly described in the article on Harlow New Town (AR, May, 1955). The site is essentially flat but there is a general fall towards the northern (approach) side. The school is for 320 juniors and 240 infants and is grouped into three separate parts: junior school; infants' school (the only link between the

two schools being an uncovered paved way); and dining block, which is joined to the infants' school by a covered way.

The generator of each of the school plans is the assembly hall, and the schools are arranged about this space. The hall has windows on one side opening on to a covered way and thence to a green space. It is lit by a continuous clerestory on the three other sides; the

## SCHOOL AT HARLOW

roof of the hall rises above the roofs of the cloakrooms, stores and corridors surrounding it, which are kept low. Where (as in the administrative offices) additional height is required, advantage has been taken of the slope in the ground to have a lower floor. Classrooms have a sloping roof with clerestory lighting on the higher side, and comparatively low eaves on the side of the main window, towards the south or east. This gives no more than the



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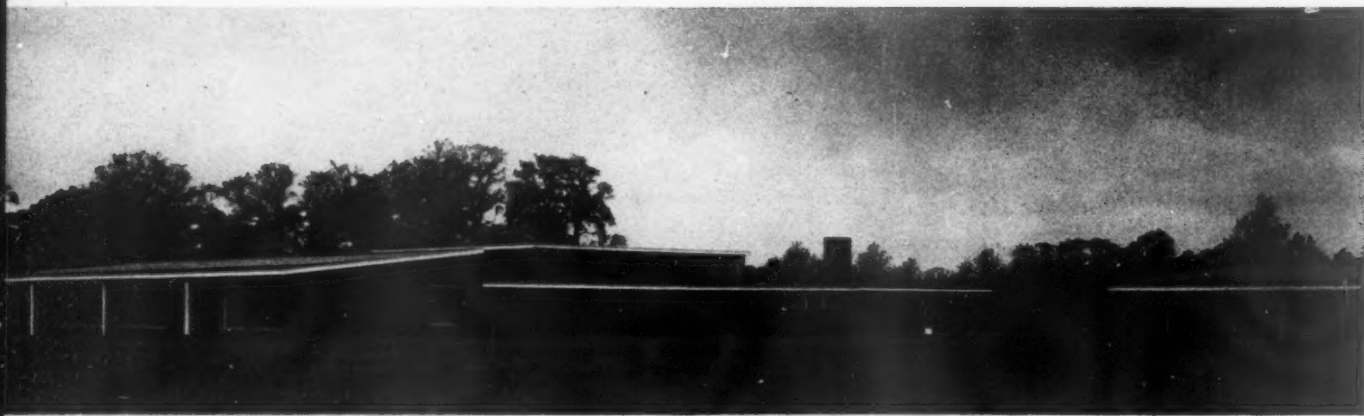
2, dining block (left) showing juncture with and classroom window of infants' block ; 3, junior school (right) seen from covered way on east side of infants' block.  
4, general view of school from south, showing sloping classroom roofs of both school blocks (infants' left) and dining block (with chimney) centre.

minimum necessary light, as the architect felt that the frequent tendency to overlight classrooms causes an effect of bleakness.

Just as the school units concentrate round the assembly halls with views into them from the corridors, so the two schools and the dining block are brought together to form a single group round an enclosed space to be used for circulation and also to provide a formal centre for the whole school. The playgrounds and playing fields are on the outside of the group of buildings, the infants' playground immediately adjoining the west side of the infants' school and so enabling some walls to be used for playing ball. From the exterior, emphasis is laid on the long horizontal lines of the fascias which are painted white for maximum contrast with the dark brick and dark metallic grey of the windows.

Each class of the junior school is provided with individual cloak hanging space. An open store and sink are added to the teaching space and a lock-up cupboard is provided for the teacher. There are low, wide tiled window cills for flowers and models, and other necessary paraphernalia. In the infants' school, coats are hung in the corridor, the class store is off the corridor and the sink is in the classroom by the window cill (which is of the same design as those in the junior school). There are inlaid patterns on the floor for impromptu games, counting, etc.

Walls are of load-bearing brickwork. Classroom roofs are timber, on RSJ's. Steel lattice portal frames support the assembly hall and dining hall roofs. The roofs of the kitchen, cloakrooms and corridors are of concrete slab. External bricks are brown-black in colour, and those in the corridors are buff. Steel windows are painted with dark grey metallic paint. Colours in classrooms are varied, without any violent contrasts, as the walls are intended to be much used for the pinning up of children's drawings and work. Strong colours are used in corridors and cloakrooms.



4



## SCHOOL AT HORNSEY

**ARCHITECTS**  
**Associate Architect**

**RICHARD SHEPPARD AND PARTNERS**  
**Gordon Taylor**



1, entrance to school, on north side, with projecting upper storey containing classrooms; kitchen to the left.

This is a four-form entry secondary modern school for 600 pupils in Creighton Avenue, on the west side of Muswell Hill. The site originally sloped steeply from south to north with a gradient of 1 in 20 and this had to be levelled over the school area and a 20-ft. high retaining wall provided across the rear of the site.

Like the schools at Ruislip and Hounslow (AR, June,

1954) this is designed to the Middlesex County Council's compact-planning requirements. The main teaching rooms are situated in one central two-storey block running north and south down the middle of the site. This basic arrangement brings most of the teaching rooms, with their stores and ancillary accommodation, together in one compact unit. The rooms are placed either side

2. view southwards with assembly hall in distance. 3. the two-storeyed block containing staff and administrative rooms. 4. view into dining area from assembly hall. 5. entrance court with administrative offices.



2

of a 22-ft. corridor. This width avoids the institutional atmosphere which can result from the use of a narrower corridor; it also allows hat and coat racks to be centrally placed on the ground floor.

Access to the main teaching

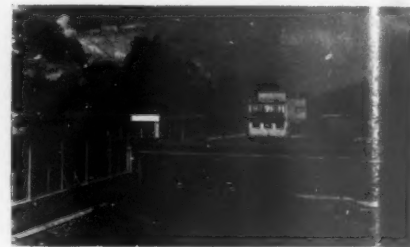
rooms on the first floor is by two broad stairs—the only stairs in the school. The remaining accommodation is planned in four 'arms' which project forward east and west from the extremities of this main block and are linked to it by corridors or covered ways.

The construction of the school falls into three main types: reinforced concrete frame for the lower storey of the main teaching block and the kitchen and the dining hall; load-bearing brick walls with concrete roofs for the administration wing and girls' changing room; steel frame for the remainder. Facing bricks are yellow and dark brown, with occasional panels rendered and painted. In between the steel frame of the first floor

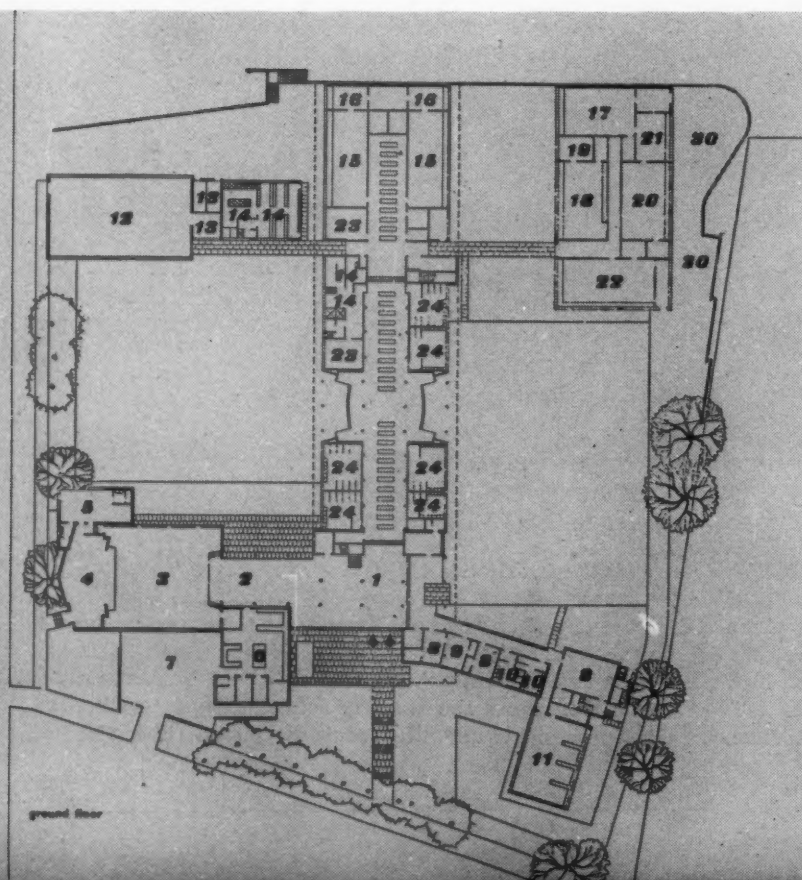
of the main teaching block, and below window cill level, glass panels have been fixed externally. The back of these panels is painted dark green or light blue.

Internally, walls are generally plastered, with some walls built in fair-face brickwork in the assembly hall and dining hall—dark grey and yellow—and some walls in patterned tiling. Otherwise walls are generally painted in white and grey with strong colours in small areas. Wallpaper has been used in the library and the staff common room, to provide additional interest.

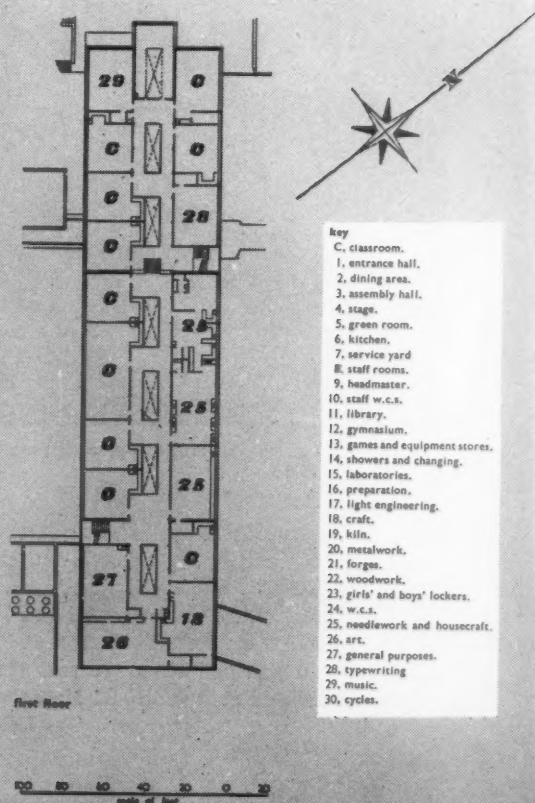
Floors are finished in many different materials: those in classrooms and stores with thermoplastic tiles; in lavatories, kitchen, and changing rooms with quarry tiles; the stairs with terrazzo. In certain rooms various hardwoods have been used: in the gymnasium, loliendo strip; the assembly hall,



3



ground floor



first floor

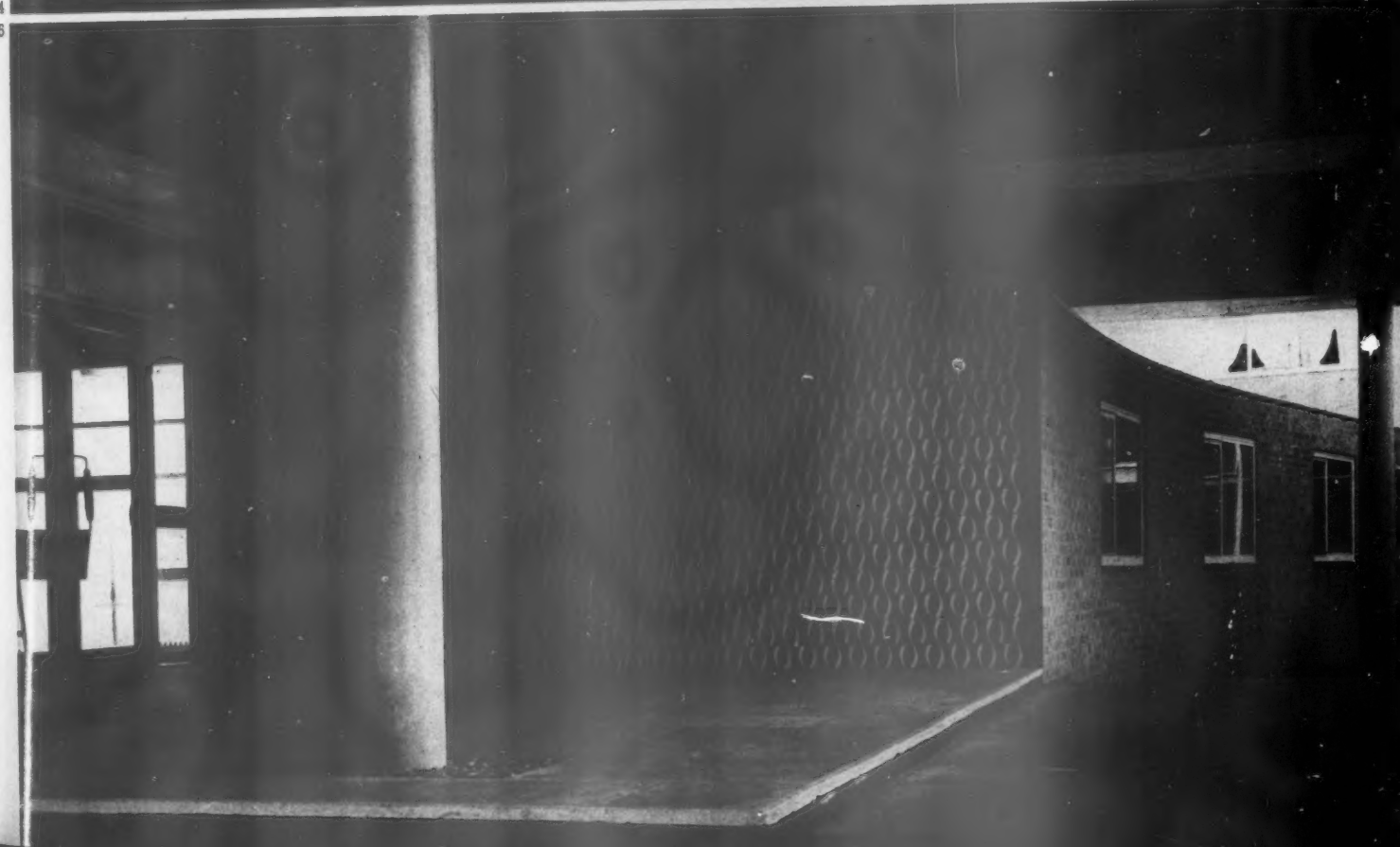
- key
- C, classroom.
  - 1, entrance hall.
  - 2, dining area.
  - 3, assembly hall.
  - 4, stage.
  - 5, green room.
  - 6, kitchen.
  - 7, service yard.
  - 8, staff rooms.
  - 9, headmaster.
  - 10, staff w.c.s.
  - 11, library.
  - 12, gymnasium.
  - 13, games and equipment stores.
  - 14, showers and changing.
  - 15, laboratories.
  - 16, preparation.
  - 17, light engineering.
  - 18, craft.
  - 19, kiln.
  - 20, metalwork.
  - 21, forges.
  - 22, woodwork.
  - 23, girls' and boys' lockers.
  - 24, w.c.s.
  - 25, needlework and housecraft.
  - 26, art.
  - 27, general purposes.
  - 28, typewriting.
  - 29, music.
  - 30, cycles.

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feet of feet

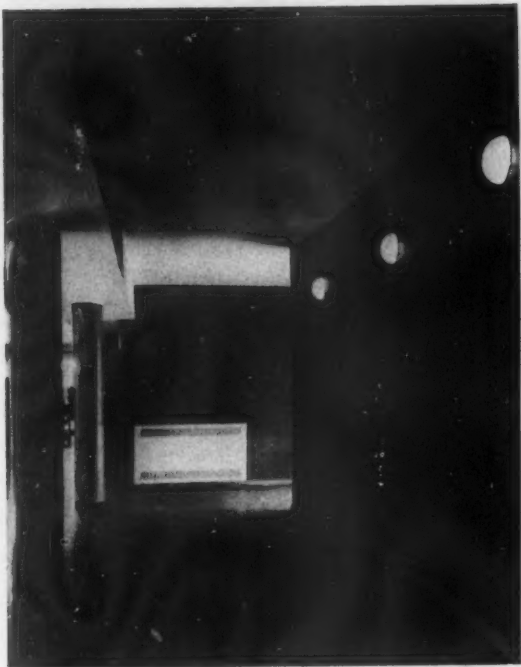
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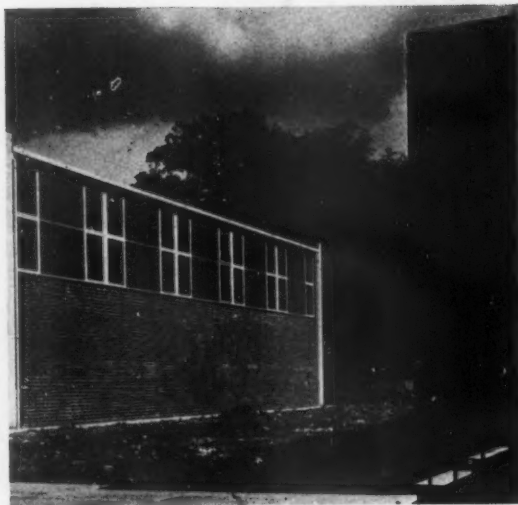




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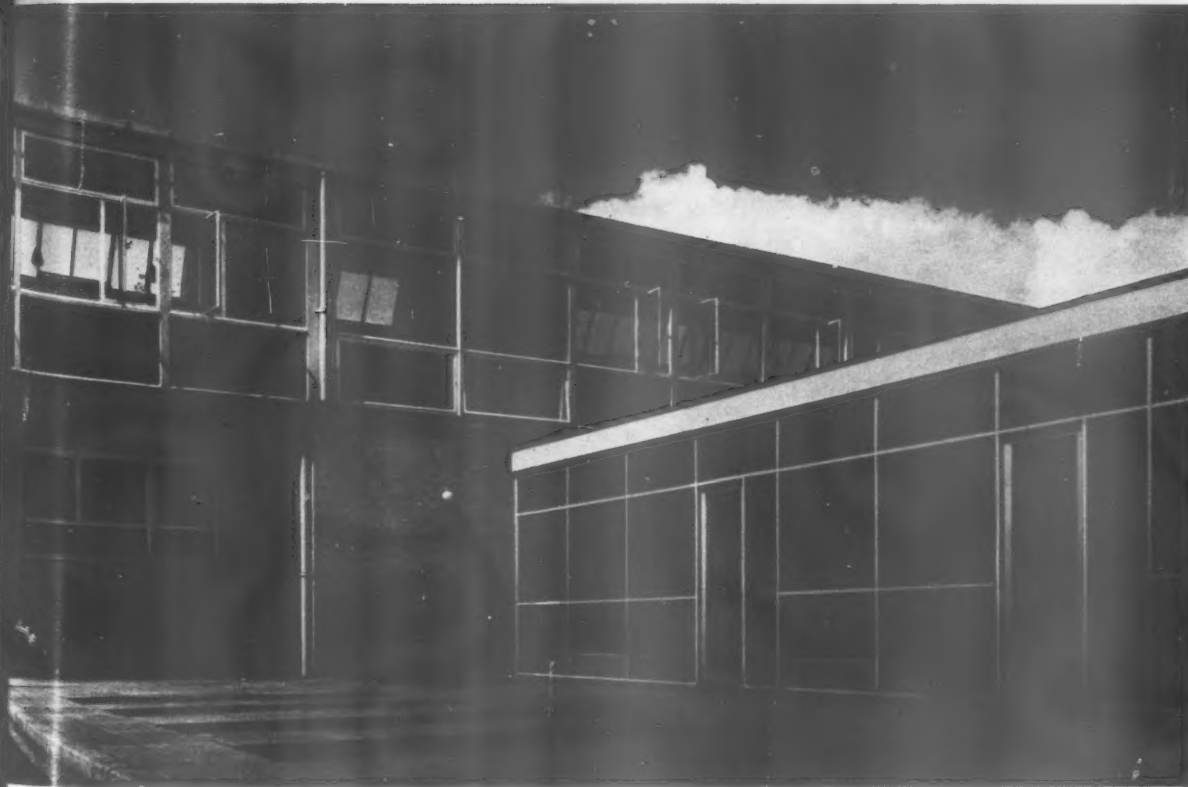
10

# **SCHOOL AT HORNSEY**

6, widening in the north-south cloakroom passage.  
7, enclosed ventilators from the ground floor seen in upper floor passage. 8, south-east corner of gymnasium. 9, staircase on south side of entrance hall. 10, view across dining area of assembly hall and stage. 11, assembly hall exterior, south-west view. 12, east side of central block with classrooms above.



11

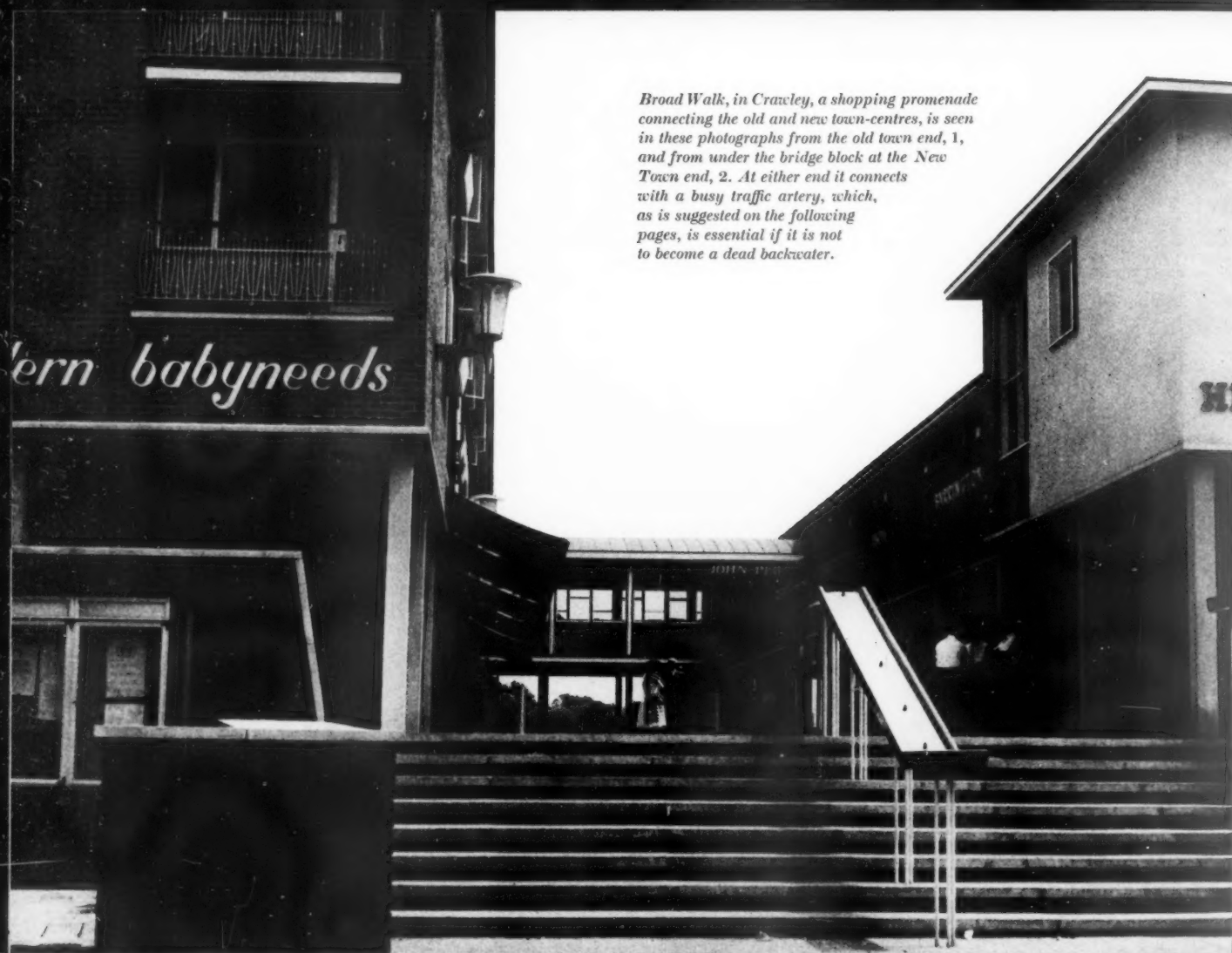


12

missanda; the entrance hall, gurjun; staff rooms and science rooms, sapele.

The building is heated by low-pressure hot water fired by solid-fuel boilers. The heating surface generally takes the form of radiators, with heating panels embedded in the floor thickness in the case of the library and the assembly hall.

*Broad Walk, in Crawley, a shopping promenade connecting the old and new town-centres, is seen in these photographs from the old town end, 1, and from under the bridge block at the New Town end, 2. At either end it connects with a busy traffic artery, which, as is suggested on the following pages, is essential if it is not to become a dead backwater.*



1



2



Charles Forehoe and Kenneth Browne

# Shopping Precincts

## ROWS, BACKS, TWITTENS, GANNELS, SNICKETS AND VENNELS \*

The future of shopping is in the melting-pot, but whatever that future may hold in store the corridor street—where two lanes of traffic crush the shopper against the shop windows—is unlikely to be a constituent part of it.

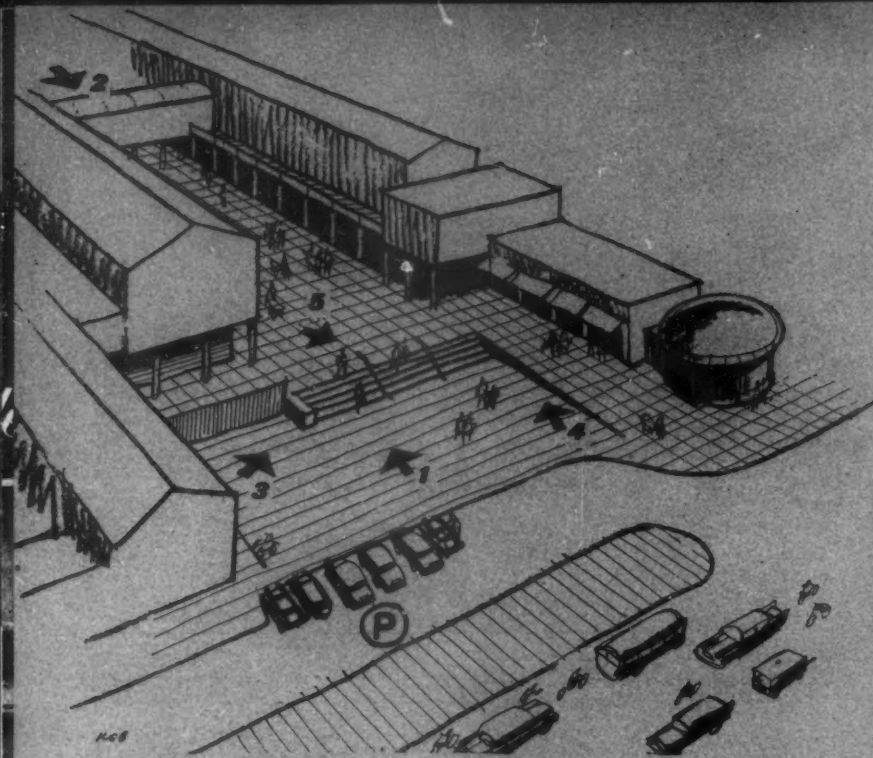
The recognition is growing that shopping is a form of purposive loitering, conducted on foot and at walking pace, and even in the homeland of the 'drive in' the US shopper is becoming increasingly accustomed to quit his car in order to walk the planned piazzas and air-conditioned promenades of vast out-of-town supermarts—the peace of mind that accompanies pedestrian velocities, circulation on the scale of man, is conducive to better merchandising, both from the vendors' and the purchasers' angles.

However, solutions which may be ideal for the inhabitants of the Great American Exurbia are not necessarily those that would suit either British shoppers, or British planning conditions. Our land is scarce, but to us a mile is still a long way. Our automobiles are smaller and fewer, but not further between; more of us expect to use public transport, and few of our retailers operate on sufficiently large or diversified a scale to provide supermarket facilities.

Our problem is to create centres of natural congress—urban foci that will attract the small, specialist retailers who, together, can provide balanced merchandising; will attract the motorized and the bus-borne shopper, and provide them with good cause to change down to foot-pace velocities. Such natural foci in the past have tended to occur where two social patterns have overlapped—John Nash made his shopping places along Regent Street, the seam that joined lower-class Soho to the upper-crust squares of the West-end, and along Albany Street where the Regent's Park terraces back on to Cumberland Market.

Nowadays such social stratifications count for little, and our shopping habits—particularly in recently-founded communities like the New Towns—run to a fairly standardized middle-class pattern. What differentiates us nowadays is whether we are mechanized or not, and it is not an overlap of social patterns, but the interlace of velocity-diagrams

\* Some, though not all, of these local terms describe shopping promenades, but all in general imply a pedestrian place connecting traffic roads. Rows may be found in Great Yarmouth and Chester (among other places); the Backs of the Inns in Norwich are a complicated network of minor shopping streets, largely pedestrian; Snickets seem to belong to the Home Counties, Twittens to Sussex, Gannels to the North of England and Vennels to Scotland.



**Broad Walk** *Architect to the Development Corporation: H. S. Monogrove-Graham*  
 Broad Walk, Crawley, has as its most notable feature a pedestrian 'patio' at the lower end, 3. Rising ramps, 4, on either side make access possible for prams, etc., but the steps, 5, make it clear that Broad Walk is unsuitable for motors.



that creates natural foci—points where motorized circulation, on the scale of the city, tangles with pedestrian circulation, on the scale of man.

Because this interlace is—commercially and psychologically—literally vital, the corridor street is the lowest form of life among shopping centres, and the pure pedestrian precinct the highest form of death. The corridor street tangles the two velocity-diagrams on a level of Subtopian squalor, the automobile has to crawl and the pedestrian has to run, no circulation and no peace of mind. The pure pedestrian precinct isolates twentieth-century man from his fifth limb, and he therefore goes to some other place where he can do business without being amputated from mechanized transport.

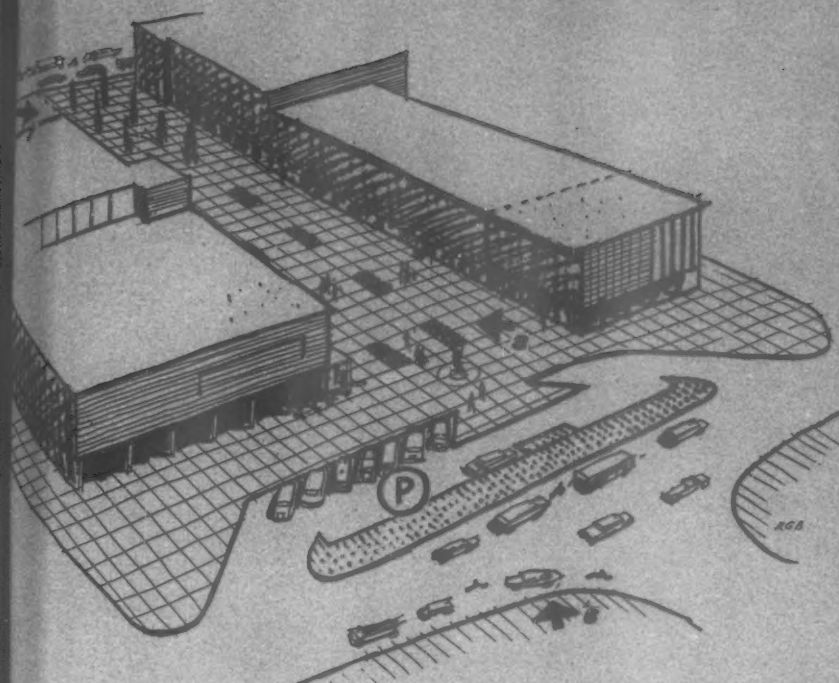
The shopping centre of the future—the shopping centre *with* a future—must provide the pedestrian with circulation of his own, but not isolated from the main arterial circulation of his town. Man and Motor must be got out of one another's hair, but not out of one another's sight, for fully to value the tranquillity he has gained, the shopper must be able





**Vanderbijlpark** Architect: P. H. Anderson

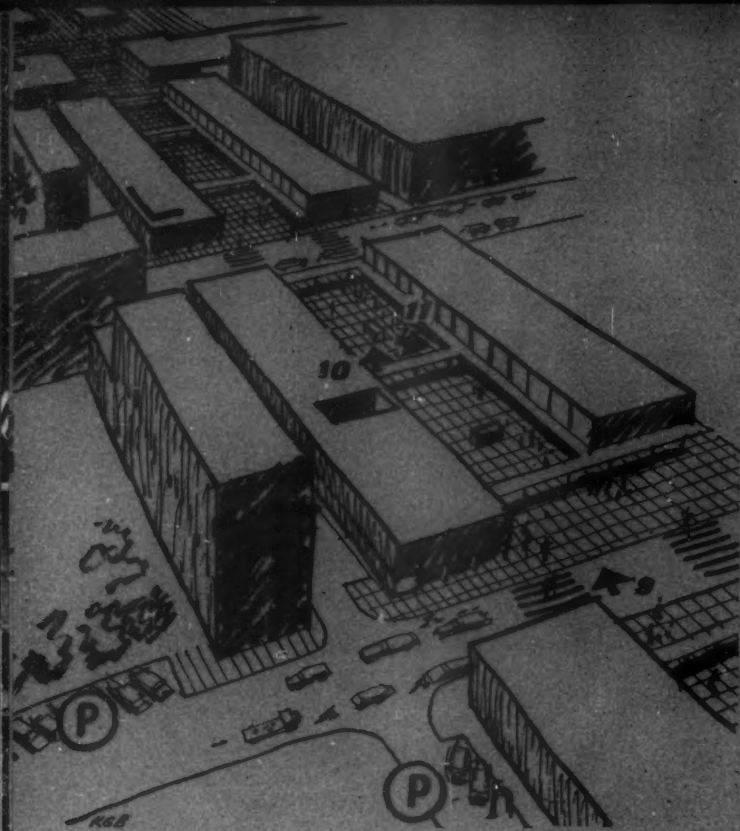
Built to serve a new community in southern Transvaal, Vanderbijlpark shopping centre has had to make urban scenery out of a terrain with no topographical aids. The shopping promenade is accented by quick-growing trees at the market end, 7, where there are no buildings to give shade, and at the Becquerel Street end by the monument, 6, which holds open a pedestrian line of communication across the street.



to savour the mechanized hustle he has left behind; to appreciate his special privileges of random, low-speed meandering, he must remain conscious of the high-speed, precisely-oriented flow of traffic outside.

Protection from the risks of traffic must be balanced by a constant sense of its vital presence, and the planner must be able to combine his two velocity-diagrams in such a way that full value is obtained from their interlace. This points up two particular problems: the junctions between the two diagrams and the management of car-parks. These must remain two separate problems, for the accumulation of a layer of static automobiles around the shopping promenade would merely isolate it from traffic flow—the points of junction cannot also be car-parks, they must be planned visually to present the automobile to the pedestrian, and vice versa. Almost a problem of stage-management, with some suitable hazard—steps, bollards, a kerb—serving as footlights, not between audience and drama, but between two dramas.





**Lijnbaan** Architects: J. H. van den Broek and J. B. Bakema

Not a new town development, but part of the rebuilding of the bombed heart of Rotterdam, the Lijnbaan takes much of its character from the way in which it intersects with the existing grid of traffic streets, and forms an interrupted sequence of pedestrian spaces, 'ventilated' by traffic arteries, 9. Very sensibly, for a northern climate, the architects have provided almost continuous shelter-canopies along each side, linked by periodic transverse canopies, 10 and 11, which also give an increased sense of intimate interior spaces.



10



9



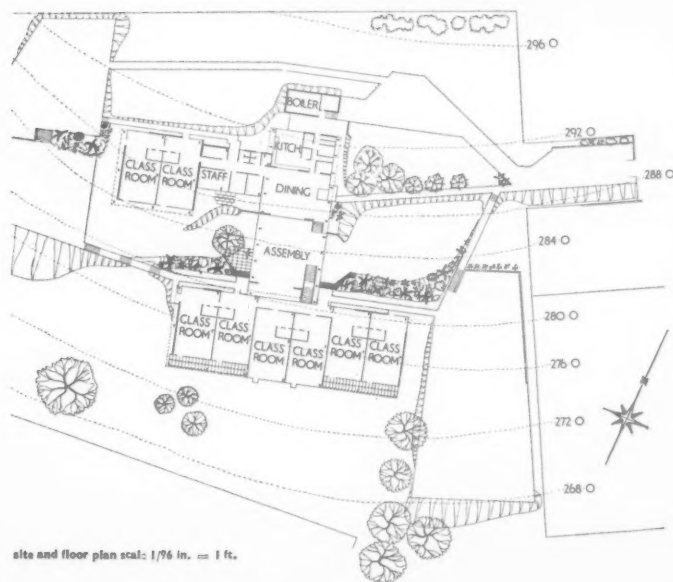
11

The illustrations to this article show three examples of a growing world-wide skill in presenting the drama of mechanized transport, and the drama—almost a pastoral today—of pedestrian shopping, so that they add maximum value to one another. The methods they employ are very different—in Vanderbijl Park an exiguous length of unparkable kerb, but forcefully signalled by a monument, holds open a view to the moving traffic beyond; at Crawley, a slight change of level marks the shopping promenade as unsuitable for wheeled traffic, and also provides a view over the roofs of any vehicles parked at the end; the Lijnbaan at Rotterdam reads as a serial with the long pedestrian walk continually intersecting an existing grid of traffic roads. The double drama is clearly one that may be produced in any number of different ways; it is up to the planner-townscaper to find the one which gives particular value to his own version of it.

## current architecture recent buildings of interest briefly illustrated



1, the two classrooms on the upper terrace, with staff rooms on the right.



site and floor plan scale: 1/96 in. = 1 ft.

### SCHOOL AT GARSTON, WATFORD

HERTS COUNTY ARCHITECT, C. H. ASLIN

ARCHITECT-IN-CHARGE, R. C. N. PAUL

This Infants' School was designed for 320 children and was opened in April, 1954; one of four schools built at this time using a timber frame designed on a 40-inch module. The site is in a comparatively new housing area, falls 20 feet across the building area and has a fine view to the south across the valley. Two main building terraces were formed parallel to the contours and were linked by the Assembly Hall forming a third terrace level running at right angles to the slope. The Classrooms were grouped six on the bottom terrace and two on the top, together with the administrative rooms and kitchen, the two long sides of the Assembly Hall on the central terrace being glazed in order to give visual continuity to the ground plane along the middle terrace. The 8-foot floor to ceiling heights for most areas, together with the flexibility gained from the freedom of planning the wall screens under the roof areas and off the frame grid, were found to be the greatest assets in attempting to attain the small-scale informality considered essential for an



2, looking south from the assembly hall over the roof of the lower classroom block.

## School at Garston, Watford

Infants' School. The timber frame was developed from first principles, each element being tested to destruction in the works, before the final designs were accepted. The frame components, consisting of stanchions, beams and cantilever brackets, were erected on the site. The frame consists of hardwood 'V' shaped stanchions of two types for 8 foot and 11 foot 4 inch room heights, and are designed allowing main beam cantilevers. The main and secondary beams are all softwood with a constant depth of 2 feet. Main beams have softwood top and bottom booms with plywood webs. Lengths of beams are in increments of 3 feet 4 inches up to a maximum of 30 feet, plus a maximum of 8 foot 4 inch cantilevers each end. Secondary beams have open latticing and are again in 3 foot 4 inch increments of lengths up to a maximum of 23 feet 4 inches, not including 20-inch secondary beam cantilevers. Except in the Assembly Hall, where the special shaped main beams were exposed and painted, all beams were enclosed above a suspended ceiling. The constant roof beam depth is expressed on face of the building with a deep fascia made of 9 mm. West African mahogany plywood treated with linseed oil. External screens are solid glazed or windows between medium section mild steel droppers at 40-inch centres around the periphery of the buildings. Window types used were from mild steel standard universal sections made up into french casements, projecting top hung and top hung ventilators. Solid screens on softwood frames between droppers are of cedar with 9 mm. Lagos plywood internally. Internal screens are 2½-inch and 2¼-inch plasterboard on screen grid finished either painted or with cold glued surface sheets of hardboard (various patterns), or ⅛ inch plastic, depending on type of surface protection and decoration required. All sheets are fixed direct to softwood soffits of secondary beams and to softwood noggings. Classroom floors are ⅛ inch Semastic. The Assembly Hall floor is Rhodesian Teak wood block. Heating is from boiler in detached house.

## POLICE HOUSING IN HIGHGATE

CHIEF ARCHITECT, METROPOLITAN POLICE:

J. INNES ELLIOTT

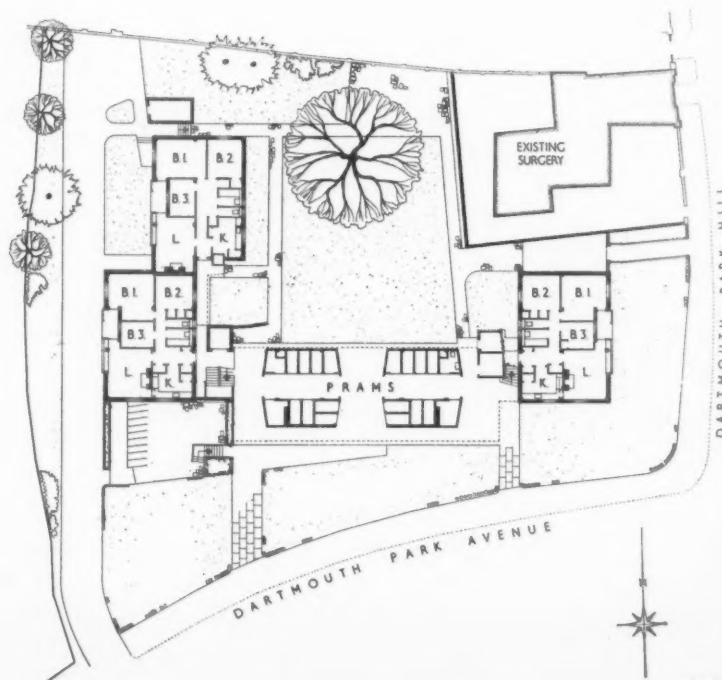
SENIOR ARCHITECT-IN-CHARGE: S. J. HANCHET

The site of these married quarters for the Metropolitan Police flats falls westwards along its length from Dartmouth Park Hill, with a cross-fall from the north to the frontage on Dartmouth Park Avenue. The site falls have been used by raising the east block at half-landing height above the central block, and by forming basement accommodation under the west block, with access from the service road. The basement provides a hobbies room, the transformer chamber (required by the LEB), store room and undercover play space. A passenger lift in the west staircase serves all floors and the basement, and a cantilevered connection balcony on the north side of the centre block connects the east and west staircases, and gives access to the lift from the upper floors.

All the flats provide the same accommodation, and are sited so that the living room and two of the bedrooms face nearly south, and the one other bedroom, kitchen, bathroom and w.c. north.

The basement is in reinforced concrete, the remainder having a reinforced concrete subframe of columns, beams, suspended floors, balconies, canopies, staircases and lift motor room. Column bases are in mass concrete; the lift well enclosure walls are of reinforced brickwork. External walls are of hollow wall construction, with infilling of reinforced concrete beams and columns. Structural columns passing through living rooms are in fair faced concrete painted with emulsion.

Opposite, 3, top left, and 4, top right, the central block looking downhill (west) and uphill, 5, below, the scheme seen from Dartmouth Park Avenue.









6, the north façade of the administrative block

## FACTORY AT HARLOW NEW TOWN

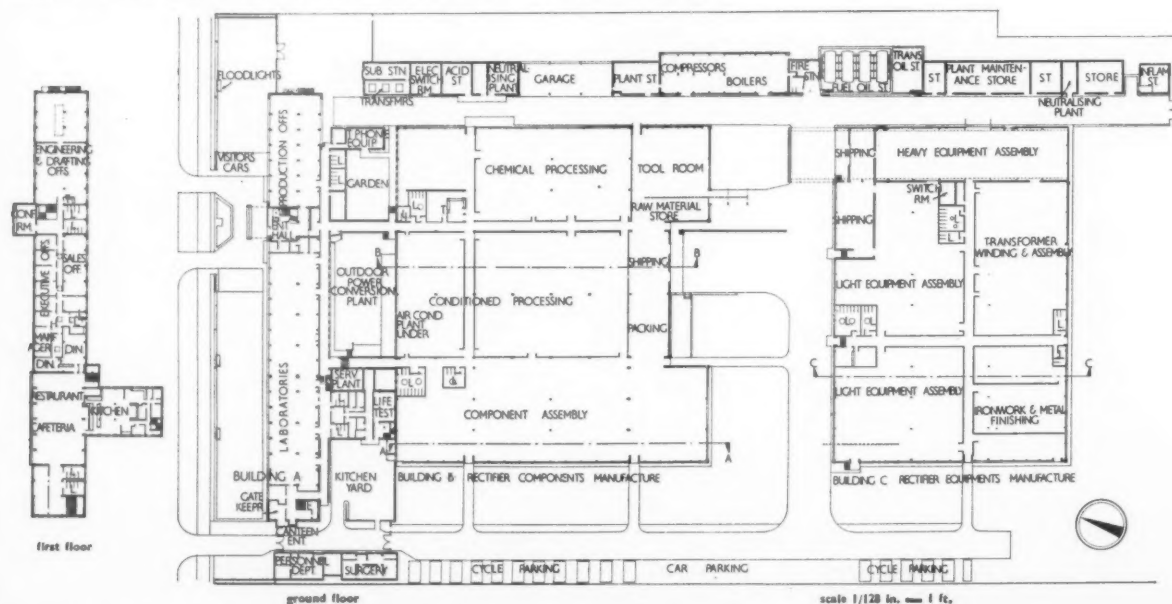
ARCHITECTS, HARLOW DEVELOPMENT CORPORATION

This factory—the largest in the Templefields industrial area—was briefly illustrated in the article on Harlow, AR, May, 1955. The 8½-acre site has a frontage of about 140 yards on the south side of Edinburgh Way. The administrative area of two storeys stands along the road frontage in front of the production area. The production blocks are separated and different methods of construction used on account of the different processes being carried out in them and to allow for future expansion. Ancillaries such as stores, garages and boiler house are placed in a separate block along the east side of the site.

The entrance to the administrative block is under the projecting board room. At this point a contrast to the simplicity of the other buildings is provided in a variety of textures and patterns—for example recessed light fittings in a dark red ceiling over the entrance, continuing through into the hall, which is floored in ceramic tiles of

three shades and walled in brick and vertical hardwood strips. The staircase is a free-standing reinforced concrete monolithic structure with treads of dark blue terrazzo and risers of white ceramic tiles.

The central section of the production area B houses processes requiring an air-conditioned and dust-free environment; to eliminate ledges and other projections, reinforced concrete barrel vaults have been used, with clerestory lighting at the ends, and a basement provided to circulate warmed and humidified air. The outer sections (assembly and chemical processing) of block B are constructed in the light lattice framework of high-tensile steel. The main girders span 60 feet at 24-foot centres, with two monitors to each bay. These are built up in light angles with patent glazing clipped on; their purpose is complete flexibility of machine layouts through even distribution of light.



## HISTORY

### CHESTERTON, WARWICKSHIRE

*There is scarcely an English county in which (as Mr. Lees-Milne has recently observed) 'some Jacobean house with, say, a window, gable or porch displaying a more or less regular use of the classical orders, has not been classified by over-zealous topographers as an Inigo Jones building'*<sup>1</sup>. Though in most cases such ill-informed attributions can be dismissed out of hand, they are sometimes worth investigation. For the influence of Inigo Jones spread far beyond the narrow Court circle to which his own architectural activities were confined, and for many years after his death his buildings were studied and admired by those many architects and master-builders for whom (as a German traveller noted in 1740)<sup>2</sup>, Jones was 'the Palladio of England.' What we find is unlikely to be an authentic work of the master (or even of his pupil John Webb), but may well prove to be an imitative work by one of those master-builders who were the backbone of English architectural practice in the seventeenth and eighteenth centuries.

Chesterton in Warwickshire is a case in point. Every guidebook to the county contains a reference to the vanished seventeenth-century mansion of the Peytos, 'designed by Inigo Jones and demolished in 1802 by Lord Willoughby de Broke,' and draws the visitor's attention to the still surviving windmill, likewise said to have been 'erected from designs by Inigo Jones.'

For further information we turn to Dugdale's *Warwickshire*, and to the manuscript collections of Thomas Ward of Barford, now in the British Museum.<sup>3</sup> From these two authorities we learn the essential facts in the history of the Peyto family: how they claimed descent from a Poitevin ancestor reputed to have come to England in the reign of Henry II, how in the fourteenth century John de Peto acquired the manor by marriage, how in the fifteenth Sir John de Peto rebuilt the manor-house and filled the windows of its hall with heraldic glass, how in the sixteenth the family produced its most famous son, that William Peto who was made a cardinal under Queen Mary, and how in the seventeenth Sir Edward Peyto was 'a strenuous assertor of the Parliament against King Charles I,' and held Warwick Castle in the face of the royal army.

Sir Edward Peyto died in 1643, and it was

his son, another Edward, who in about 1655 began to pull down the old manor-house and 'to build a Mansion House and other buildings necessary for his habitation' on the hill overlooking the church. But in 1658 he died at the early age of 32, leaving a widow to bring up his heir and five other children. During his last illness he had told his servant Robert Smoak that 'if he should dye before the said buildinge was finished his desires were that the same should be completed,' and in his will<sup>4</sup> he accordingly directed that 'the building I have begun at Chesterton may be finish'd out of the rents of the lands in Chesterton which belong after my decease to my son Edward Peyto . . . towards which I do give and appoint that all the Bricks, Stones, Timber and other materials provided for that building shalbe therein employed.' True to her trust, Elizabeth Peyto carried on the work with the aid of the faithful Smoak, and it is their accounts (now divided between the Willoughby de Broke archives at Stratford-on-Avon, and those in the British Museum<sup>5</sup>) which enable the progress of the work to be followed to its completion in c. 1662. The masons chiefly employed were Thomas Bonde, father and son, but they were both paid by the day, and were evidently local men with little capital who were not prepared to take a contract for the masonry as a whole; or, if they were, Elizabeth Peyto was too prudent a manager of her son's heritage to put out the mason's work 'by the great,' a manner of proceeding which was universally condemned by seventeenth-century writers on building. As for the plan and elevation, they had of course been settled by Edward Peyto in his lifetime, and are consequently not mentioned in his widow's accounts. But there were certain details for which drawings had still to be obtained, and so 'in October, 1659, she gave £1 to 'Mr. Stone for Drawing the Draught of the head of the Pillars for Chesterton.' In the following year she paid John Stone £2 'for the 2 capitalls of the arch at the Staires,' and a further £6 as part 'of the Bargaine he made for the 10 Capitalls of the lower Row of pillars, and to Caius Gabril Cibber for the same work £4.' Further entries show that in 1660 Cibber carved the ten capitals of the upper order and the staircase doorway, for which he received in all £24.

John Stone (1620-1697) was a member of a family of London master-masons, and Cibber, afterwards a well-known sculptor, and father of Colley Cibber the actor, was at this time acting as his foreman. John's father, the famous Nicholas Stone (1586-1647), had served as master-mason under Inigo Jones at the building of the Banqueting House in the reign of James I, and had been one of the most distinguished monumental sculptors of his day, designing and erecting many splendid tombs in churches all over the country. Among them, as we know from his notebook,<sup>6</sup>

was the one in Chesterton Church to the memory of William Peyto (d. 1609) and his wife Eleanor (d. 1635), which he made in 1639, and 'for the which I had well payed unto me 150<sup>l</sup>. 1. Now in 1639 Nicholas Stone also made a monument in St. Mary's, Warwick, to Sir Thomas Puckering, the owner of Warwick Priory, 'for the which Ser David Cynningham my Nobell friend payed 200<sup>l</sup>.' and a few years before he had been paid £180 by Sir David for erecting a very similar monument at Charlton in Kent to Sir Adam Newton, Puckering's brother-in-law, and father of Sir Edward Peyto's wife Elizabeth.<sup>7</sup> The similarity between the two monuments was not accidental, for in his will<sup>8</sup> Sir Thomas Puckering had directed that the 'materials, forme and proportion' of his tomb were to be 'sutable to that erected in Charlton Church for my brother Newton.' As for Sir David Cunningham, he had been one of Sir Adam Newton's executors, and when Sir Thomas Puckering's executors required a duplicate of Newton's monument in 1639 it was natural that he should be consulted. He was evidently interested in architectural matters, for he was the builder of the house in Lincoln's Inn Fields, now known as Lindsey House, which is one of the earliest examples of what Mr. Summerson has called 'the purer type of Artisan classicism,' and which he suggests may have been designed by Stone himself.<sup>9</sup> Whether or not the Peytos were personally acquainted with Stone's 'noble friend,' they would certainly have known the monument to Lady Peyto's father which he had commissioned, and it may well have been this family connection which led to the sculptor's employment at Chesterton. When Sir Edward Peyto the Parliamentarian died in his turn in 1643, and was buried in Chesterton Church, his monument too was evidently made in Stone's yard, for not only does it closely resemble the two monuments ordered by Sir David Cunningham, but Dugdale procured an engraving of it for his *Warwickshire* which bears the signature 'Ioh. Stone delin. et fecit.' It was John Stone who in 1660 supplied the black marble ledger-stone which covers the remains of the second Edward Peyto, for among the family papers at Stratford-on-Avon is his receipt for £5 from Mrs. Elizabeth Peyto 'in full payment as well for all worke done for her as for particularly a gravestone sent down for her husband deceased.' John Stone, like his father, was a mason as well as a sculptor, and we have it on the authority of his brother-in-law Charles Stoakes that he was 'an excellent architect.'<sup>10</sup> Hitherto nothing has been known of his architectural activities, but in view of the continuous patronage of his firm by the Peyto family over a period of some twenty years, and the fact that he was employed by Elizabeth Peyto in 1659 to make the 'draughts' for the capitals of the superimposed orders which

<sup>1</sup> *The Age of Inigo Jones* (1953), p. 105.

<sup>2</sup> *The Letters of Baron Bislefeld*, trans. Hooper (1770), IV, p. 99.

<sup>3</sup> Add. MS. 29264, ff. 189-90.

<sup>4</sup> P.C.C. 62 NABBS.

<sup>5</sup> Egerton MS. 2905, ff. 126-133.

<sup>6</sup> *The Note-Book and Account Book of Nicholas Stone*, ed. W. L. Spiers (Walpole Society, 1929), p. 78.

<sup>7</sup> *Op. cit.*, pp. 85, 76.

<sup>8</sup> P.C.C. 197 GOARE.

<sup>9</sup> *Architecture in Britain 1530-1830* (1958), p. 102.

<sup>10</sup> *The Note-Book of Nicholas Stone*, p. 20.



were the principal feature of Chesterton House, it is reasonable to conclude that it was he to whom Edward Peyto had gone for a design when three or four years previously he had 'resolved to build a Mansion House and other buildings necessary for a habitation.'

Had the house which he designed survived to the present day there can be no doubt that it would have been regarded as one of the most interesting examples of the architecture of its time, 1. Its dependence on the Banqueting House in Whitehall is obvious, and shows how faithfully John Stone clung to the Palladian formulas which his father had learned from Inigo Jones. Had Jones himself been its author, the relation of the ends to the centre would no doubt have been managed more adroitly, while the centre itself would certainly have been emphasised by something more effective than the row of niches whose swan-necked canopies nod to one another between the urns. Nevertheless, the elevation of Chesterton avoids the *gaucheries* of that of Brympton D'Everey in Somerset, another house whose designer borrowed features from the Banqueting House, and managed them so badly that the terminal pediment at one end is segmental in form while that at the other is triangular, 4. But the house with which Chesterton may most profitably be compared is Coleshill in Berkshire, 5, which three years ago was so lamentably destroyed by fire. Designed by Sir Roger Pratt in about 1650 for his cousin Sir George Pratt, it was completed in the same year as Chesterton, and likewise owed a good deal to Inigo Jones. Both represented the new type of compact, rectangular house introduced by Jones and his pupil Webb, and Chesterton, like Coleshill, was probably what Sir Roger Pratt called 'a double pile,' that is, a house two rooms deep divided along its length by a corridor, and entered through a central hall containing a grand staircase. So far as the exterior was concerned, the problem was to give interest to what might easily become a somewhat monotonous succession of identical windows. In both houses this was achieved by skilful variation in the spacing of the windows, and, in the case of Chesterton, by the additional embellishment of superimposed orders and pedimented architraves. There can be no doubt that in the refined simplicity of Coleshill Pratt achieved a better composition than Stone did with his architectural parade at Chesterton. But it would be unfair to judge Chesterton solely by the illustration, 1, for Cibber's carving was certainly more competent than Ward's rather coarse drawing would suggest, and the effect of the façade on a sunny day must have been exceedingly handsome.

The young Edward Peyto did not long survive his father, and Chesterton passed to his brother William, who died in 1699. The last male member of the family was William, son of William, and nephew of Edward Peyto, who, in the words of Thomas Ward, 'lived here at Chesterton in no little honor, being one of the first rank in this County, and representing it in several Parliaments as one of the Knights of the Shire . . . and being fond of the sports of the field, for he kept a Pack of Fox Hounds.' Unfortunately he was also too fond of the bottle, and died at Warwick in 1734, while

overcome by liquor after a dinner at the Castle. Thomas Ward says that he was 'unfortunately strangled' as he lay helpless on his bed, 'his servant having neglected loosening his Neckcloth.' He died unmarried and intestate, having destroyed a will made not long before on discovering that the lawyer—one 'Will' Wright of Warwick (so called 'on the account of his making wills') had surreptitiously inserted a clause leaving a handsome legacy to himself. His heir at law was his aunt Margaret Peyto, who died in 1746 at the age of 88, leaving the Chesterton estate to her cousin, Lord Willoughby de Broke. But her 'kind bequest' was disputed by collateral branches of the family, and when the sixth Lord Willoughby had the house pulled down in 1802 it was reported that he did so 'to prevent possession being taken' by any rival claimant. The materials were taken to Birmingham and sold, and today nothing remains of the Peyto mansion except a walled garden, a brick gateway, 6, leading from the churchyard to the site of the dried-up

architect, for he had a number of architectural text-books in his library,<sup>11</sup> and with their aid the designing of these comparatively simple structures would hardly be beyond the powers of one who is described on his monument as *vir bonarum Literarum maxime mathematicarum peritissimus*.

These were not the only buildings which embellished the Peyto's estate, for in Thomas Ward's manuscript there is a sketch, 9, of a curious building known as the Lodge, which once stood near the clump of trees called Lodge Wood.<sup>12</sup> It was, Ward says, 'a kind of Summer House, having two Rooms one over the other, and both wainscotted. In the lower Room was a cupboard in which was painted very masterly a large loaf of bread and a cheese half of which was cut, a cucumber and onion, plate, knife, etc., which being seen at a small distance gave every appearance of things in reality: and the edifice becoming out of repair, through chinks and fissures in the door and windows, many looking through have been much deceived.' This whimsical conceit has



1 fishponds, and a fragment of carving preserved in the church.

But half a mile to the north-west, on the highest point in the parish, stands the windmill, 7, which the guide-books so confidently attribute to Inigo Jones, and not far away, at the end of a small lake, is the charming water-mill illustrated in 8. The windmill is dated 1682, and must therefore have been built by Sir Edward Peyto (d. 1649). The façade of the water-mill is evidently of the same period, and the two buildings may therefore be treated together. Both are beautiful examples of seventeenth-century mason's work whose classical formality can hardly, at this early date, have been due merely to a local master-builder. But despite the persistent attribution of the windmill to Inigo Jones, it is equally evident that neither building displays the Palladian correctness so characteristic of his authentic works, and, in the absence of any documentary evidence, it is tempting to suggest that their real designer may have been Nicholas Stone. However, it is equally possible that Sir Edward was his own

long been destroyed, but Ward's sketch shows that it was square in plan, with windows corbelled out over the angles rather like the bartizans of a Scottish castle. Unlike the other buildings associated with Sir Edward Peyto, it was Jacobean in style, and belonged to the same class of architectural extravaganzas as the famous lodges built by Sir Thomas Tresham on his estate at Rushton in Northamptonshire. While the erection of such a building was therefore by no means unprecedented, its siting 'on an elevation backed by a small plantation' seems to indicate an awareness of the picturesque on the part of its builder which in the first half of the seventeenth century was decidedly precocious, and which makes its destruction all the more regrettable.

Howard Colvin

<sup>11</sup> I am indebted to Mr. Philip Styles for drawing my attention to the catalogue of the library at Chesterton, drawn up in 1733, and now among the Willoughby de Broke papers at Stratford (No. 1741). The architectural works included three editions of Vitruvius, a Palladio (1601), Scamozzi (1615), Alberti (1553 and 1566), Philibert de l'Orme (1620), de Vitres (1619), and Rubens' *Palais de Gesnes* (1625).

<sup>12</sup> Mr. Styles tells me that its foundations can still be seen.

The Ingram Street Tea Rooms are the only one of Mrs. Cranston's Glasgow tea rooms still essentially preserved in the form Charles Rennie Mackintosh gave it. Six illustrations in Mr. Howarth's book give an idea of its fascination, the ingenious interplay of levels, the grilles through which the eye is tempted to explore in diverse directions. The eye is apparently not much longer going to have a chance of doing so. The Corporation, four years ago, bought the property for £21,000. They have never found a suitable tenant. The Saltire Society and the Mackintosh Memorial Trust had a plan for its use partly as a restaurant, partly as an art centre. Conversion would have cost the Corporation about £10,000. So the offer has been turned down and the building is to go now to a jeweller and warehouseman who will retain Mackintosh features 'as far as practicable.'

That is a shocking end to a miserable story. Would Glasgow behave in the same way if the object were a series of outstanding Elizabethan interiors, with wood carving and plaster-work galore? Or has it still not dawned on the Corporation that Mackintosh is in the same category? Surely, now, that is fifty years after the event, the historian and the connoisseur can be trusted as to what is going to last and what was a flash in the pan.

Glasgow is not rich in works of architecture of more than local interest. Ingram Street is one of them. Glasgow has a gallery of paintings inferior in these Isles to the National Gallery only. To build it up has cost quite some money. The Burrell Collection will add yet further lustre when it is finally opened in its own building. If money can be found for such purposes, why is the duty to architecture and to the classics of the twentieth century neglected?

The interior of Ingram Street could be torn out and re-erected, if the building as such is commercially too valuable to keep them there. The job would need much respect and much tact, but it could be done. Only it would not cost much less than the £10,000 needed to keep the building going as it is and as it ought to be.

My own hope is America. American museums collect rooms, and American scholars appreciate Mackintosh. The Glasgow Corporation, having behaved as it has, cannot possibly now place obstacles in the way of any possible American purchaser who would be ready to re-erect the group of rooms, perhaps as a



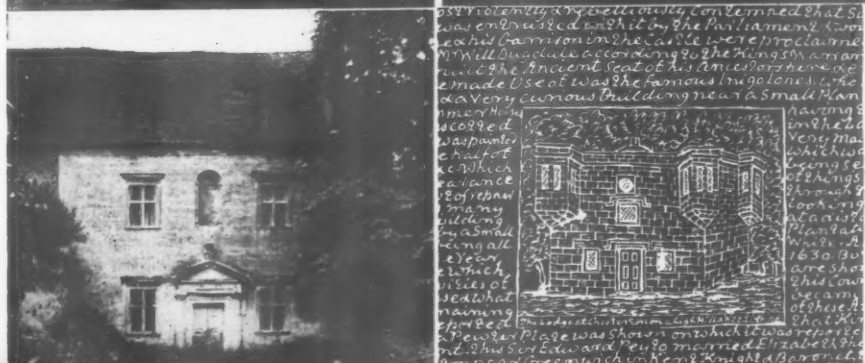
2, *William Peyto*, carved by *Nicholas Stone* in 1639, and, 3, *Edward Peyto*, d. 1643, probably carved by his son John; both in *Chesterton Church*. 1, opposite, engraving of *Chesterton House*, dem. 1802, compared with 4, *Brumpton d'Evercu*, Som. and 5, *Coleshill*, Berks.



*Buildings on the Chesterton estate. 6, the brick gateway between the church and the grounds of the house; 7, the windmill; 8, the watermill, and 9, the lodge, now demolished.*



6.7

[illegible]



museum canteen. And as for an export licence, in these columns (*Exporting Buildings*, April, 1953) a passage from the Waverley Report has been referred to which encourages the export of unwanted houses from this country.

Nikolaus Pevsner

## EXHIBITIONS

### PAINTING

*Ned Kelly and his band made themselves armour out of ploughshares, but it was too heavy for use in their lightning raids, and when they were on horseback they wore only their steel headguards: this fact has played a decisive role in the imagination of Sidney Nolan, who is the first Australian artist to gain a European reputation.* Kelly, as perhaps everyone knows, was a bushranger and bank robber who operated in an area between Melbourne and Sydney still known as 'the Kelly country.' He pulled off his hold-ups without murder, was generous to poor people, never molested women, and was hanged in 1880 at the age of twenty-six for causing the death of a policeman when shooting his way out of an ambush: but if he had never worn that absurd homemade headpiece, like a little boy playing at crusaders, Australia's contribution to the ever-necessary renewal of the myth of the good law-breaker would have lacked its fine iconographical distinction and rough poetry, and Nolan would be simply an excellent topographer of the strange landscapes of Central Australia,



1

and a recorder of the graphs of misery and fear explicit in the skeletal mementoes of Australia's cataclysmic droughts. As it is, his interpretations of an epic figure which is still potent in the dreams of an entire community transmit a unique magic on a more broadly communicative level than the great subjective 'personages' of twentieth-century painting—the Disquieting Muses of Chirico, the Minotaurs of Picasso, the Standing Forms of Sutherland—and may yet rival them in formal self-sufficiency.

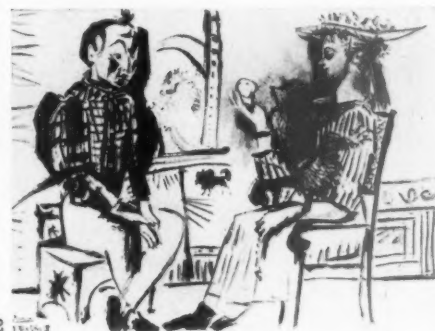
There were a dozen paintings of the Kelly theme, 1, in Nolan's one-man show at the Redfern Gallery, and they are greatly superior to the delightful but illustrative group, in the manner of the naïve painters, shown at the New Burlington some time ago. He is now probing the mystery of identity and sometimes achieves an interplay of phantasmal presence and human personality by leaving out the head of the outlaw and surmounting the realistically conceived body with a black silhouette of the headguard, whose aperture is filled by a cloudless sky that pours its heat-hazed light on to a flat, lonely, interminable landscape. The effect is at once sinister, comic, tragic and uncannily plausible.

I have devoted half my space to Nolan, in a month which has provided a rich and various feast for the eye, because here, for the first time in this century, is an artist who is fortunate enough not to have to make what Sir Herbert Read calls 'a mythological salad,' and intelligent enough to rise to the occasion. He has inherited a virgin myth, and he can increase the value of his addition to the significant imagery of our time by continuing to explore its meaning, by remaining sensitive to its origins and by patiently developing his pictorial system. To say, as some people already do, that he can't go on painting the Kelly gang indefinitely is to fail to understand that his present treatment of the theme has rendered it inexhaustible, and Jean Cassou has not exaggerated in referring to him as 'a painter who creates in us a wonder of something being born.' Nolan can learn a great deal from Europe's immense experience of the myth, but if he should be tempted to abandon Ned Kelly and adopt some of our more civilized themes we shall probably have to treat with a no more than moderately talented painter: I say this, because he included some Italian landscapes and Crucifixions in his Redfern show that are merely documents of a provincial culture hunger.

No contemporary painters have been more addicted to the mythological salad than Picasso and Masson. It was André Masson who introduced the minotaur into modern painting and aroused Picasso's

interest by inviting him to design the first cover for the magazine which borrowed its name, but Masson's own minotaur designs lack substance, and the paintings from various periods which he recently exhibited at the Leicester Galleries suffer from the same look of flimsiness. If one is well-disposed towards them they reveal his acute poetic intelligence and his subtle knowledge of the grammar of painting, but they have no sensual assurance, and the line and colour emit a thin clamour under the lash of his passionate intentions and exasperated intelligence.

On the other hand, it would be almost impossible for Masson to get into the philosophical muddles and perpetrate the hotch-potch of jejune and sentimental ideas that make Picasso's famous series of one hundred and eighty drawings on the theme of the ageing artist's relations with the model such boring 'reading' when followed page by page in the special number of *Verve*. Rebecca West would have us believe that it is 'the most prodigious artistic event of the century,' but it seems to me to be on the same mental level as his automatic poems and his play *Desire Caught by the Tail*. The sixty-three drawings from the series which have been framed and spaced out on the walls of Marlborough Fine Arts do not impose the same spurious air of profundity, and some of them are reminders that he is one of the world's greatest draughtsmen, 2, though none approach his finest flights.



Other shows of consequence or charm can only be briefly mentioned: the superb brown and black abstracts by Pierre Soulages, 3, at Gimpel Fils, like vast, doom-laden letters from a private alphabet; lovely pictures by Bonnard, Renoir, Braque and Derain at the Hanover Gallery; twenty-six large paintings of Spanish subjects by Jack Smith, at the Beaux Arts, including a fine view of Toledo, 4, and some studies of the bullfight made to look homely by the artist's familiar light-brown tonality and stubby figuration: paintings by a well-known American artist, Mark Tobey, at the Institute of Contemporary Arts, which, although they look quite blank at a distance, are





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## LANDSCAPE

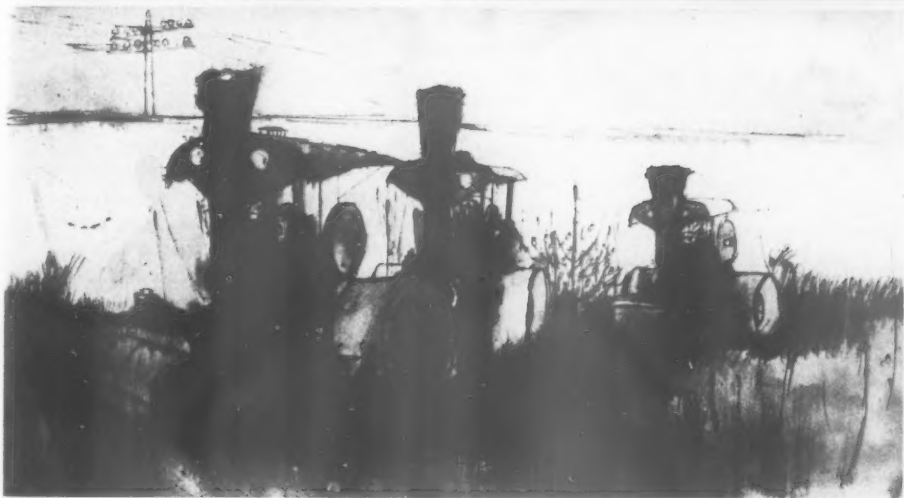
### HYDROPHOBIC REPORT

*The continuing opposition by officialdom to the maintenance and development of our remarkable network of inland waterway navigations is not rational. It can only be explained in Freudian terms.* The latest attack comes in the Report of the Board of Survey of the Canals and Inland Waterways, a body which was appointed in April, 1954, by the British Transport Commission. The Report is a disastrous document—not only misleading and unrepresentative, but defeatist and destructive. It recommends that one third of the 2,100 and odd miles of inland navigations of this country be closed to navigation at once and that 994 more miles be retained as they are for the time being. Only seven canals, totalling 336 miles, says the Report, 'carry substantial traffic and offer scope for commercial development'. It recommends that these alone be developed. Thus, about three-quarters of our inland waterways are seriously threatened with abandonment. It is the old myopic policy of Cutting-out-the-Deadwood.

The canals are losing money and the Board of Survey produces biased evidence to support its recommendations. Now, these recommendations are based on two false premises: (1) that inland waterways have only one function—to make a financial profit for the State from commercial transport; (2) that most of the waterways cannot be revitalized because, in the words of the Report, 'to rehabilitate them to normal traffic standards would involve a vast expenditure.'

As always, the problem is financial. 'The cost is prohibitive'—even though the exact amount of the 'vast expenditure' is not specified and even though money is, in effect, merely a book entry.

We possess a splendid national heritage in our waterway network, which however criminally neglected it has been and however much it requires modernizing, has a number of valuable potentialities. It forms a *whole system* and should always be regarded and treated as such; if too many of its branches are lopped off the trunk itself will eventually die. That system was seriously damaged in the past by the Railway Interest which bought many of the canals and then proceeded systematically to sabotage them. Under National ownership this should not happen and the waterways should be managed with the respect they deserve as an



5



swarming with exquisite calligraphic fragments, as if Tobey were perfecting his handwriting before composing a poem on 'swarming' or 'teeming' or even 'grace abounding'; delightfully organic steamrollers, 5, and bicycles, in Moroni's show

at the Leicester Galleries; and at the Trafford Gallery in Mount Street, drawings of beautiful Italian boys and girls by Anna Salvatore, which depict them being uniformly pensive about the sorrows of adolescence, 6.

Robert Melville



1

1, a lock in the Bratch staircase on the Staffs and Worcester Canal. 2, a cutting near Market Drayton on Telford's Shropshire Union Canal.



2

essential part of the whole transport network of the country; in fact they are being treated with the same destructiveness now as they were in the days of *laissez-faire* competition, in spite of the evidence that water transport is the cheapest form of transport and in spite of the growing congestion on the roads and the slowness, incompetence and general demoralization of the railways. That our waterways have survived at all is astonishing and is a sign of their value.

The Board of Survey has failed to realize that waterways have other uses than the provision of financial profits from commercial transport. Those other uses are: land drainage, water conservation and distribution, the preservation of wild life, and the provision of landscape amenities and of grounds of a unique character for fishing, tourism and pleasure boating. But beauty and pleasure show no profits that can be stated on a balance sheet and the other benefits are not direct; therefore, to 'practical' bureaucratic minds, they do not exist.

The water level is falling rapidly throughout the country. Lack of water may soon become serious—and this in a land of abundant rainfall. The waterways can help to collect the rains and distribute them before they run away unused to the sea. The Board of Survey ignores this important matter.

Since the waterways were nationalized ten years ago far too little has been done to improve them; the neglect is unashamedly admitted in the Report. No creative long-term policy has been offered by the authorities and no attempt has been made to publicize the advantages and possibilities of inland waterway transport. Is it surprising, therefore, that too few industrialists regard such transport seriously?

The imaginative development of our waterways should be an inspiring activity, for the possibilities are great. Not least among these is the splendid Grand Contour Canal proposed by that modern Brindley,

Mr. J. F. Pownall. This creative and practical scheme would provide a great water highroad from the main ports right into the heart of the country, linking organically with the existing waterways and running, without obstructive locks, along the natural canal line of the 300 feet contour. It would not only permit sea-going vessels to penetrate to the industrial centres (these vessels being lifted hydraulically up to the 300 level at the sea ports), but would collect and distribute water on a national grid, thus eliminating the need for wasteful reservoirs.

Perhaps large, official bodies cannot be creative, least of all when bound by current financial restrictions. If that is so, then the individual, responsible citizen, pending reforms, must take action by instituting vigilant organizations to infuse some life into the officials and to see that they do, at least, preserve our heritage and carry out the minimum statutory obligations. In the sphere of waterways, such a body has existed for some years in the Inland Waterways Association. This body has already carried out much valuable work, thanks largely to the initiative of its Founder and Vice-President, Mr. Robert Aickman. The Association is now combating this nefarious Survey Report and is doing its utmost to make waterway revival a political issue. It is rightly calling for the establishment of an independent National Waterways Conservancy and Development Board whose aim would be the revival and development of every existing waterway in the country.

The Association deserves the support of all those who have not yet sunk to that state of apathy and of cringing respect for authority which is the worst symptom of our bureaucratic state. But the Association must fight with aggressive determination, for time appears to be short. It must also be able to give a clear answer to the ineluctable and dominant question: 'Where is the money to come from?'

To help them to answer that question I offer one surprising piece of information

about our capital-producing potential and also one slogan. The information comes from a recent Third Programme Talk by Mr. Colin Clark:

'Work on total capital requirements—that is requirements in transport, housing and all other uses, as well as manufacture—has recently been completed by two young statistical pioneers, R. W. Goldsmith in the United States, and Mr. Philip Redfern in England. . . . The industrial capital of the United States, that is to say all forms of industrial and commercial buildings and equipment, including working capital and roads and other public capital (my italics), but excluding housing, was found by Goldsmith to be equivalent to only 1.3 years' national product. . . . Mr. Redfern's figures for Britain lead, interestingly enough, to almost the same results. . . . The idea that capital requirements in modern communities, even including housing might prove to be *not much more than two years' output* (my italics), and that this ratio might be rapidly falling, seems to have taken most economists by surprise. . . .'

Our constructive and productive powers are now vast. If it is physically possible to modernize and develop the waterways (and there is no doubt that this is so), then it must be financially possible. To declare that desirable developments cannot be carried out merely because they would incur 'vast expenditure' is idiotic. Pens, ink and paper are in as plentiful supply as automatic digging machines and concrete mixers. The proud claim that 'I don't understand economics' is no excuse for accepting this Vast Expenditure myth, nor for lack of ordinary common sense in dealing with physical realities.

Eric de Maré

## WORLD

### THE GREAT HALL

*Throughout the history of the Modern Movement certain great themes have recurred and, with their recurrence, have called forth authoritative solutions from the architects who have worked on them. Such a theme is that of the Great Hall, the creation of a vast interior space to house some function connected with sport, exhibitions, transport or industry, and a survey of recent magazine publications shows that this theme still works powerfully on the imagination of architects and engineers.*

As a building type, the exhibition hall has made great contributions to the Modern Movement, and is still capable of producing buildings which bring out the special qualities which it has evoked in the past. The new hall for the Basle Sample-fair, designed by Hans Hoffmann, of Zurich, and illustrated at length in *Schweizerische Bauzeitung* (May 8, 1954), is a steel and brick structure on a very large scale—each side is 146 metres long—as were the great halls of the last century, and like them it exhibits a solution which has both simplicity and a certain utilitarian elegance. The plan, 1, has an almost



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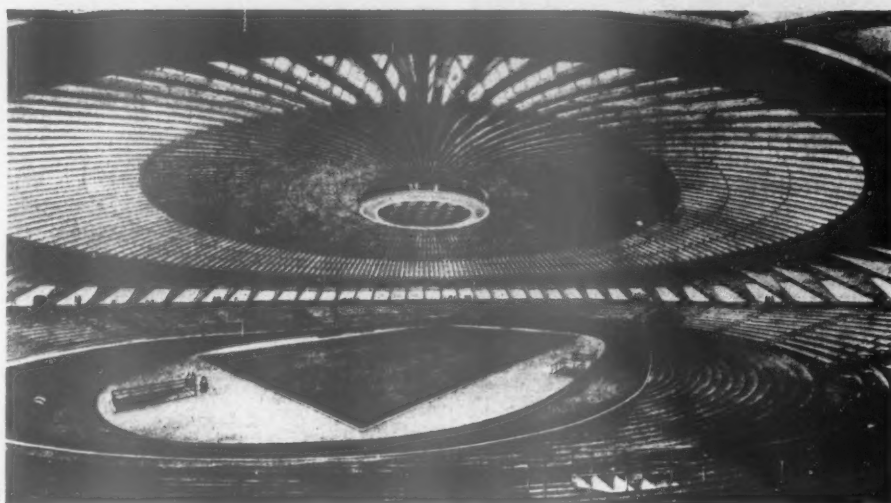
Palladian quality, being symmetrical about the axis of the main entrances and having a great circular well in the centre for circulation and vertical access to the three exhibition floors. The construction is without decoration or pretence, and all services are exposed, but the detailing is so simple and unaffected that a feeling of



2

almost Japanese structural elegance pervades the whole interior, 2.

It was in Stadium designs that Pier-Luigi Nervi first established his worldwide reputation as one of the great constructive geniuses of our time, and his project for the Vienna Municipal Stadium competition, illustrated in *Rassegna Critica* No. 29, shows that this particular field is one in which he is still virtually unrivalled. The main stadium building follows the now-customary circle-over-oval plan which gives the greatest depth of spectator space along the straights of the cycle-track, or the side-lines of the ball-game area, and at the same time simplifies the structure, since the covering member can be built up of identical elements. In this case the dome, 3, is built up from characteristic

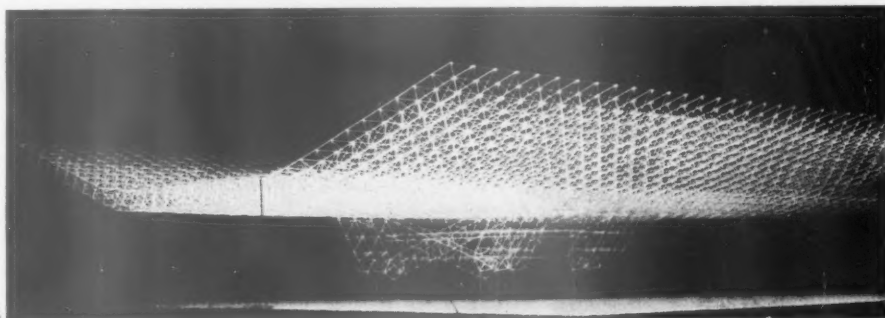


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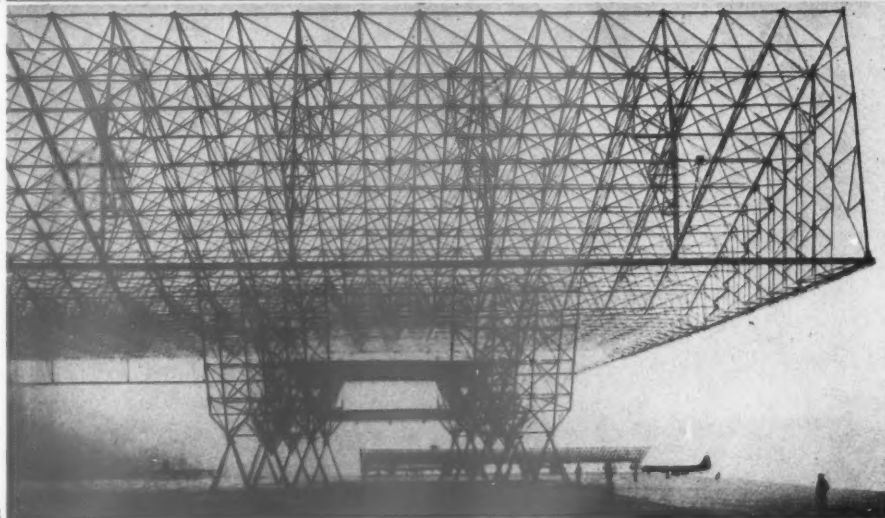
trough-shaped concrete beams, with windows in their depth for natural lighting, and has a circular platform for observation and control hung under its centre. The normal spectator accommodation is 12,000, and ancillary buildings will provide a restaurant, skating rink, offices and bathing pools.

Firmly in the tradition of the *Grands Constructeurs*, the remarkable project for a hangar devised by a group headed by Conrad Wachsmann at IIT is not, alas, to be realized. In fact its publication, in *Architectural Forum* (September, 1954) and elsewhere, marks the fact that it has ceased to be classified information from the

security point of view, and the military necessity which led to the elaboration of the project—rapid erection of servicing hangars for the B 36 super-bomber—has now ceased to exist. In form, this immense demountable structure was to have been a butterfly roof cantilevered from a row of central supports, 4 and 5, with its entire perimeter closed off by sliding doors, the aircraft to be pushed in with their noses under the lowest, their tall tails under the highest, part of the roof. Structurally the project called for very few types of components—three diameters of steel pipe, all cut to ten foot lengths, and a standard joiner unit which, though complex in

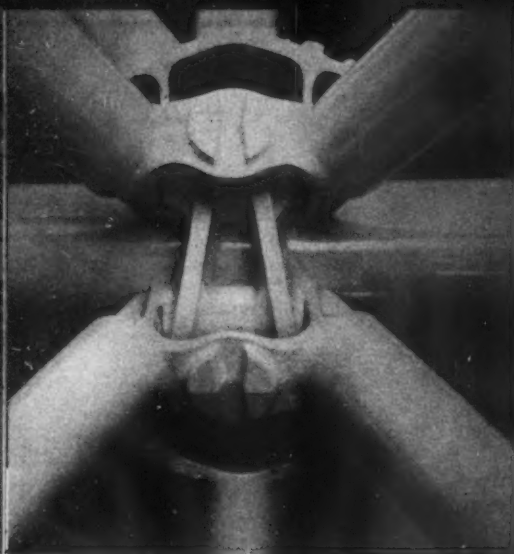


4



5





form, 6, could be secured simply by the driving of two wedges with a hammer. From these few simple elements it was proposed to erect this vast and complex space-frame structure. P.R.B.

## ART IN USE

### SADDLE-SLIDE

Besides being part of the plastic education of the child, a play-sculpture must also give maximum support to the infant imagination. Topologically there must be no dead surfaces, and no dead spaces, inaccessible to the child—from both the didactic and the recreative points of view every part of it should be accessible,

in order that the user may most fully experience the artist's intentions, and the sculpture, in return, offer the maximum opportunities for imaginative exploitation.

*Saddle-Slide*, 1, designed by Mitzi Cunliffe (whose work in the 1951 Regatta Restaurant will be remembered) for the Sarah Lawrence College, Bronxville, New York, shows an excellent appreciation of this need for maximum topological usability. Cast in concrete from a full-sized plaster model it takes the form of a thick sheet, bent into a sway-backed tent-like form. Like a tent it thus functions as a shelter, and the space under it is fully usable, but its upper surface is also completely accessible, 2.



Being grounded at only four point-supports, the shell therefore offers no dead edges (contrast the sculptures by Moller-Nielsen, in AR, August, 1954), the upward curvature of the skirts providing marginal access, supplementary to that at the ends. The perforations also extend its topological potentialities, those on one side offering toeholds for

climbing, and peep-holes for viewing, while the larger hole on the other side serves demonstrably to unite the outer and inner spaces of the Saddle-slide in a way which does not occur in play-equipment of the drain-pipe type. Henry Moore has long since pointed out the salutary plastic effect of holes penetrating to the inner space of sculptures, but here the possibility of being bodily in occupation of the inner and outer spaces at the same time introduces ranges of imaginative experience which are not open to adults who are only allowed to look at their sculpture, not climb into it. Q.S.C.

## BOOKS

### FURNITURE DICTIONARY

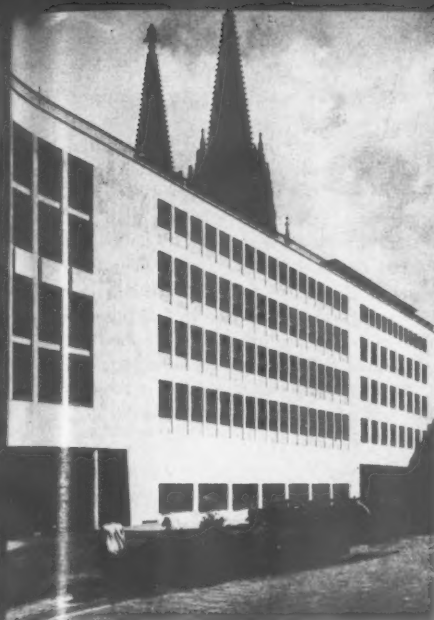
ANTIQUÉ FURNITURE. By Percy Moquoid and Ralph Edwards. *Country Life—Dictionary of English Furniture.*

First published in 1924-7, this has been the chief work on its subject ever since. Many people must have hoped that one day its scope would be extended at least to the end of the nineteenth century, but during the past thirty years the study of earlier furniture has changed considerably, and this complete revision by Ralph Edwards must have entailed quite enough work, without all the research necessary to include the almost virgin field of Victorian furniture.

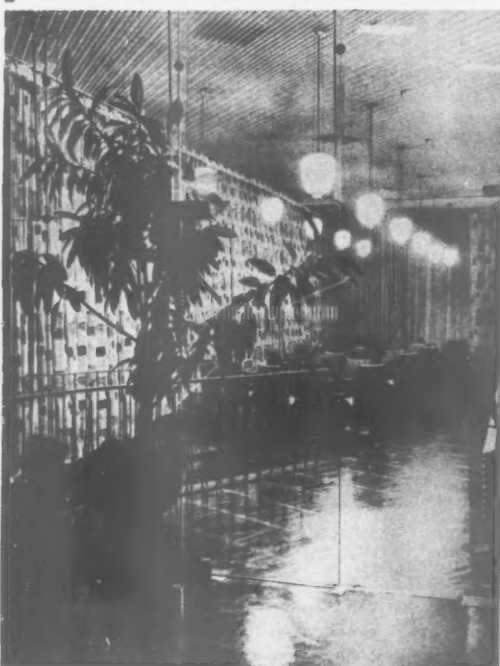
The three volumes of the Dictionary contain a series of articles, arranged alphabetically, on the types of furniture made until the early nineteenth century, the main techniques and methods of construction and decoration, and the major cabinet makers; the minor makers, often still only names on trade cards or bills, are a specialist subject and have been left out; there are 43 plates in colour, and more than 3,000 photographs. It is curious that many of the words used in describing furniture are not defined in their place. If, for instance, the beginner were to read a description in a book or catalogue of a table 'supported on lion monopodia,' he would not find monopodium defined in the average domestic dictionary, but would rightly expect to find it in a three-volume dictionary devoted entirely to furniture. In fact, many such words can only be tracked down in the captions under the photographs. This may seem a quibbling criticism of a book which is unapproachable in its field, but a dictionary should surely be as complete as possible.

Certain types of furniture stand up to the constant turning of pages of good pictures much better than others; it is clear that the thing the English do best is chairs. Almost a third of one volume is devoted to them. Some are hideous, of course, but the English genius for the chair almost instantly abandons the false tries; there is little of that camouflaging of a failure with decoration through a half-century's struggle with a basically bad design that is so infuriating in French





2

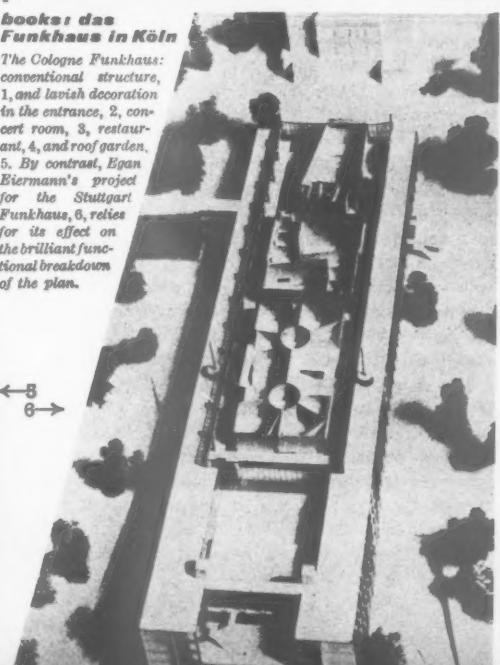


4

#### books: das Funkhaus in Köln

The Cologne Funkhaus: conventional structure, 1, and lavish decoration in the entrance, 2, concert room, 3, restaurant, 4, and roof garden, 5. By contrast, Egon Eiermann's project for the Stuttgart Funkhaus, 6, relies for its effect on the brilliant functional breakdown of the plan.

← 5  
6 →



furniture. The chair is the most limited piece of furniture, since Europeans are fairly constant in size and sit more or less upright, twelve to eighteen inches off the ground. Within these limits, and mostly within the limits of one method of construction, Mr. Edwards shows us chair after chair of remarkable vitality and perpetual invention.

Tables are less limited and less satisfactory. Beds, limited like chairs as far as basic structure goes, received for centuries such superstructures as would accord with thrones, and, provided the bed could be surrounded by curtains, the designer had a free hand to do what he liked. Some of the beds are gorgeous, most of them surprisingly un-inventive. Why? Mirrors, again subjects for a free hand, were wonderfully entertaining. Mr. Edwards rightly comments very little on the quality of design, still less on the sociological and economic aspects of furniture—all conclusions are left for us to draw. One conclusion is inescapable; the English design and make magnificent furniture, perhaps the best.

Barbara Jones

#### FUNKHAUS

DAS FUNKHAUS IN KÖLN. By Franz Berger. Verlagsanstalt Alexander Koch, Stuttgart. D.M. 39.

There are not so many broadcasting houses on this side of the Atlantic that any architect or design-group could hope to build up a body of experience in their design. It is a building-type to which every architect must come as a novice, as far as practical experience is concerned, and must expect to burrow through stray articles in remote periodicals before he can have any idea what the general attitude to radio-house design might be. Koch's sumptuous publication of P. F. Schneider's new broadcasting centre in Cologne—another modern building under the shadow of the Cathedral\*—serves a very useful function by summarizing this necessary research, in the form of illustrations and descriptions of ten major metropolitan buildings which house broadcasting services, as a kind of prologue to a full-scale description of the Cologne version.

The word *version* is deliberately used, for Schneider's design is essentially a syncretic one, based on careful study and collation of previous work, rather than a radical attempt to re-think the problem from the ground up, or, rather, from the studios outwards, as in Egon Eiermann's brilliant but abandoned project for the Stuttgart Funkhaus, where the studios and auditoria were carried on an independent frame, under an independently supported roof, between two slabs of office accommodation which insulated them from outside noise. The Cologne building follows the more general course of post-war German design in cramming specialized accommodation into, or under, a conventional frame structure—some of which, admittedly was the legacy of a bombed building which was incorporated in the block. But the syncretic approach comes out equally strongly in the aesthetics of the design, for whereas Eiermann's would form a striking visual image in its own right, Schneider's is a plain ineloquent block

\* Cf. Karl Hell's Chamber of Trade Building (A.R., March, 1955).



to which works of art have been added, cautiously on the exterior, lavishly within—stained glass, mural painting, sgraffito work, carved wood, tapestry, wrought iron, bas-reliefs, marble and rich materials are everywhere abounding, and though much of this has some acoustical justification, the total effect is of a kind of Modern-Movement *biedermeyer* Victorianism.

P.R.B.

## STORIED WINDOWS

ENGLISH STAINED AND PAINTED GLASS.  
*By Christopher Woodforde. Oxford University Press. 30s.*

Nobody is so well qualified by his scholarship (I do not say by his aesthetic sensibility) to write a history of English stained glass as Dr. Woodforde, to whose researches in various parts of England we already owe a great deal. But this book is only a forerunner of a promised larger work: though well illustrated (with 81 plates) it is very far from comprehensive. Canterbury is dismissed in under two pages and all English glass up to 1400 in nineteen, while many will find six pages on Victorian glass and two on the twentieth century no less inadequate. Sometimes this brevity can be tantalizing.

*'The windows of the Norwich glass-painters and of the Somerset glass-painters are as different from each other as they are from the windows of the York glass painters.'* Granted, but how? In what respects? We are not told. There is also very little about the technical aspect, about which amateurs of stained glass are always anxious to learn.

For Dr. Woodforde the fourteenth century is the period in which our stained glass 'reached its greatest beauty of colour and design.' The best examples of this period, in Wells Cathedral and in New College ante-chapel, are exquisite: but is there anything there which begins to compare in dramatic tension, in emotional significance, with that wonderful 'Lot's Wife' panel at Canterbury, for instance? The east window of Eaton Bishop in Herefordshire contains, we are told, 'the finest glass painting of this [in the author's view, the best] period.' The colour of this window, though no finer than that of much early glass at Canterbury and Lincoln, is certainly very rich, but I would invite the reader to examine the foot of St. Michael in the portion of the window reproduced (plate 15) and to decide whether he regards it as even tolerably well painted.

In some directions Dr. Woodforde's aesthetic judgments have a refreshing independence. If he underestimates the value of the early glass, we can at least subscribe without reserve to his views that the great east window of Gloucester has been much overpraised, that 'most of the Fairford windows are disappointing: badly painted, uninspired, and lifeless,' and that the Jervais-Reynolds window at New College represents 'a landmark, if also a low-water mark, in the history of English glass painting.' After this one reads with no more than a lifting of the eyebrow that Douglas Strachan 'had no rival in the use of colour.'

Murrey is cited as a new colour introduced in the fourteenth century: but there is plenty

of murrey to be seen much earlier, at Canterbury, as also at Chartres and Bourges. The Jesse window in Dorchester Abbey is placed in the fifteenth century, but it belongs surely to the second quarter of the fourteenth. The windows by William Price the younger are on the north side of New College chapel, not on the south, as stated. Readers of Dr. Woodforde's books will by now be inured to his habit of never mentioning the Virgin Mary (and her name occurs with insistent frequency) without the prefix Blessed. **Alec Clifton-Taylor**

## Shorter Notices

FORM IN ENGINEERING DESIGN. *By J. Beresford Evans. Clarendon Press, 1954. 10s. 6d.*

This small treatise on aesthetics for engineering draughtsmen is the more meritorious because this class of man has never before been credited with such an interest. As the writer points out, a vast category of machine-made jobs owe their final appearance not to the technician who thought them out but to the draughtsman who prepared the production drawings. For in almost any manufactured article there is a wide margin of design factors which are not determined by technical requirements, but which, from the nature of things, must be left to the man on the drawing board to decide. If 'styling,' which is the result of his decisions, has an unhappy ring, this is precisely because the draughtsman has no developed visual sense. Any book, therefore, which sets out to help endow him with this is a book which is at least rightly directed. What is a pity is that this particular essay sets out to make him an 'artist'—a man skilful with the pencil and who knows all the tricks—instead of an alert technician. In other words, it seeks to make the best of the unhappy division between thinking, drawing and making; whereas what is really wanted is to break down this division by building up a common understanding between the three kinds of man involved.

For the architect reader the book has nothing to say on general principles which he does not know already, but it has some good points to make on the detailed designs of handles, meters and fixings. **Lance Wright**

UNE PETITE MAISON. *By Le Corbusier. Editions Girsberger, Zurich. Distributed by Barmerlea Book Sales Ltd. 15s.*

This small book deals with the house Le Corbusier built for his parents in 1923 and 1924 on the shore of Lake Geneva. Le Corbusier presents the house as a classic example of the 'Machine à habiter.' The plan was completed before the site was chosen, the most economic use of space was assured through exact measurements for precise functions. When the perfect site was found—a fine view over the lake and twenty minutes from trains to the principal capitals of the world—the plan fitted it like a glove and, on this occasion, the Corbusian enterprise generally enjoyed the co-operation of destiny, though the lake acquired the habit of pushing up one end of the building at high water so that it finally cracked across. The master

gravely solved this problem with an appropriate hinge.

His comments dwell on the careful presentation of the stupendous view, the history of the various trees, the wild unexpectedness of the roof garden ('Marcher sur son toit,' he says, 'béatitude réservée jusqu'ici aux seuls chats dits: de gouttières.') and even the special steps taken to ensure that the dog should have a good view of the feet of passers-by. But though this is a delightful little book, it does not deal with a very major building, and fifteen shillings may seem a little excessive to all but the very strongest enthusiasts.

J. H. V. Davies

DIFFICOLTA POLITICHE DELL'ARCHITETTURA IN ITALIA 1920-1940. *By Giulia Veronesi. Milan, Tamburini. L. 1700.*

For purely local reasons, which have their origins in the inner contradictions which were Futurism's legacy to Fascism, it has fallen upon the Italians, rather than any other nation, to go to the stake for the cause of Modern Architecture. It is the blood upon the space-frame which is the ultimate authority behind *lo stilo nuovo*, and which confuses critics from other countries where the choices were to build or not build, to build or get out—but never to build or die. In the Triennale of 1931 the Rationalists honoured their dead, and Signora Veronesi's book, which is about the same four architects, could be the beginning of an architectural martyrology, but, as such, it is open to grave moral reservations. The four architects honoured at the Triennale were Raffaello Giolli, Giuseppe Pagano, Edoardo Persico and Giuseppe Terragni, and while the rank of the first three as martyrs is not open to any question, the case of Terragni, who died, ultimately, of wounds acquired while fighting a war of aggression on the Russian front, is extremely dubious. To devote to him an entire chapter, while Gianluigi Banfi is brushed off in a couple of two-line mentions, might perhaps be a fair assessment of their architectural merits (from a rather special standpoint) but it is an eccentric view of their political difficulties. The famous monument, which BBPR designed to honour the dead of Mauthausen, is in a sense a monument to Banfi, and their choice of the space-frame form is a tribute to Persico, the original inventor of the framed display-structure, and the first of the Italian architectural martyrs. And it is Persico, who died in 1936, his health ruined by political tortures, who is the greatest as well as the first. One cannot speak with anyone who knew him, or read the excellent chapter on him in this book, without becoming aware of the essential position which his modest, inventive and conspiratorial intellect occupies in the growth of modern architecture and modern art in Italy. Terragni's monument is the Casa del Fascio, Persico's is a legion of men, a climate of opinion, and a reformist movement in design which has won world-wide recognition.

Reynier Banham

CAPE SCAPES. *By Rupert Shephard. Frederick L. Cannon, Cape Town.*

Cape Scapes is an engaging title, and Professor Rupert Shephard's book is an engaging book. Rupert Shephard went to South Africa some years ago to reform and develop the Michaelis School of Fine Art in the University of Cape Town. He has made a remarkable job of this and the school is flourishing. The book is a pretty tribute to his new environment—a series of woodcuts of places in and around Cape Town with appropriate doggerel rhyme. The places, needless to say, include the early Victorian Dutch Reformed church at Wynberg ('built in bold black and white, and so right for its site').

P.D.



# SKILL

A MONTHLY REVIEW  
OF BUILDING TECHNIQUES & INDUSTRIAL DESIGN

1 interiors  
2 design review  
3 techniques  
4 the industry



1, telephone desk storage unit, shown in section on right.

## 1 INTERIORS

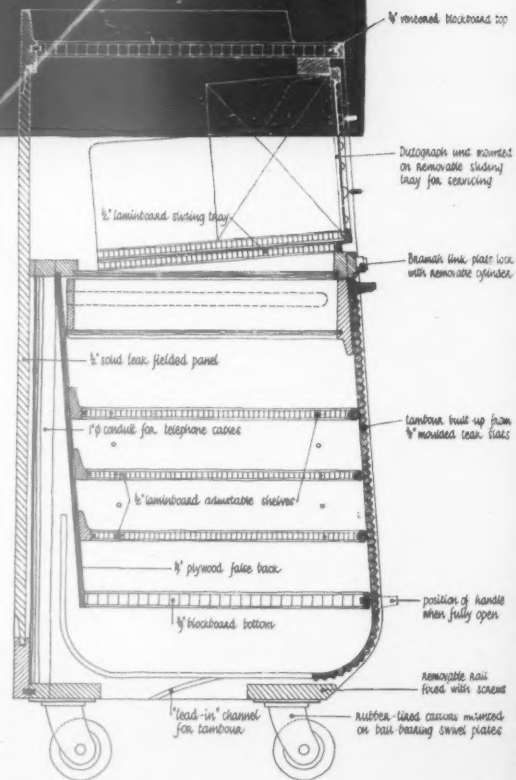
### OFFICES IN ALDFORD STREET, W.1

Designer: R. D. Russell

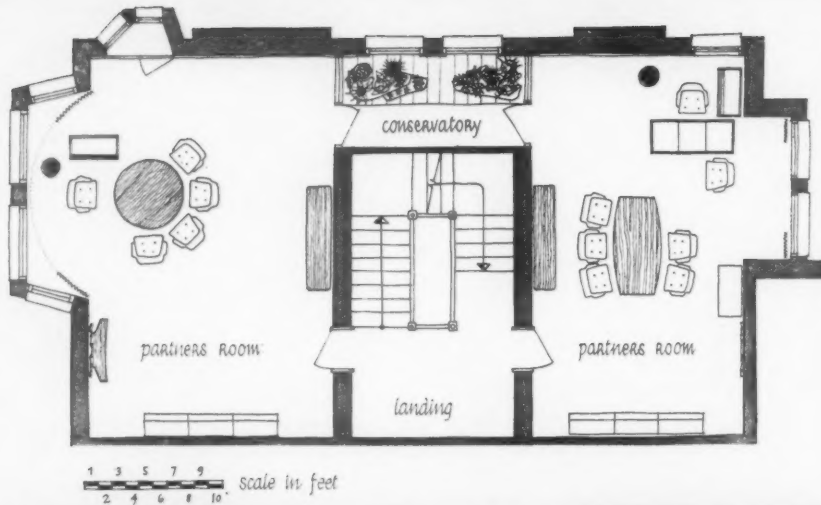
Assistants: R. H. Leigh and Ian Hodgson

The whole first floor of this house, 6, Aldford Street, consisting of two large rooms separated by one small room, was allocated to the offices of the two partners of an advertising agency, C. R. Casson Ltd. The solid partitions dividing the main rooms from the small one were removed and fully glazed partitions each containing a glazed door substituted. The small room became a conservatory passage connecting the offices.

Strongly moulded teak boarding covers



# OFFICES IN ALDFORD STREET, W.1



2



3



4

2 and 3, views of both partners' rooms showing common teak boarded wall and generally similar equipment; 4, the connecting passage which has been enlivened with conservatory plants.

the whole of the one continuous wall shared by all three rooms; the same colours and decorative treatment are used throughout, and much of the furniture in the two offices is identical.

The furniture and joinery are of Burma teak with an oiled finish; the upholstered parts of the chairs are covered with natural grained black goatskin; panels of woven cane hanging from the sillboards cover the radiators.

The triple storage fitting with bookshelves over is common to both offices, as are the chairs, the magazine bench and the telephone desk storage unit. The latter is on large castors; its vertically sliding tambours enclose loose trays for desk gear and papers in use.

In one office a looking-glass in a splendid eighteenth-century Irish carved and gilt frame faces the main entrance; the corresponding position in the other office is

occupied by a carved and gilt seventeenth-century Spanish travelling chest on a new teak base; a collection of lithographs hangs temporarily in this room on wall space intended for contemporary oil paintings.

In the conservatory, part of the floor is of polished Derbyshire fossil electrically heated to a controlled temperature: the planting in shaped trays on this marble floor has been designed by Mrs. Maria Shephard.

## OFFICES IN PARK LANE, W.1

Designers: Peter Miller and F. H. K. Henrion

This new compact suite of executive and conference offices for Erwin Wasey Ltd. marks a breakaway from the arrangement traditional to advertising agencies in this country, of a sumptuous foyer leading off into a labyrinth of indeterminate offices. The managing director's room had formerly been a library; the panelling had to stay, by order of the landlord, but the bookshelves were replaced by black panels with blown-up engravings of the 'Santa Maria' (the Company's crest). The director's desk is made to be of one piece with the conference table. An informal reception area, with a settee and a cabinet for drinks, is beside the door. The grey carpet is the same as in the

5, managing director's room, showing panels that replaced bookshelves, and directoral desk-conference-table.



6, art director's office, with desk containing viewing panel, and special spot-lighting; 7, informal corner of managing director's office; 8, curtain, designed by the art director, of photographically enlarged 17th-century French engravings.



6

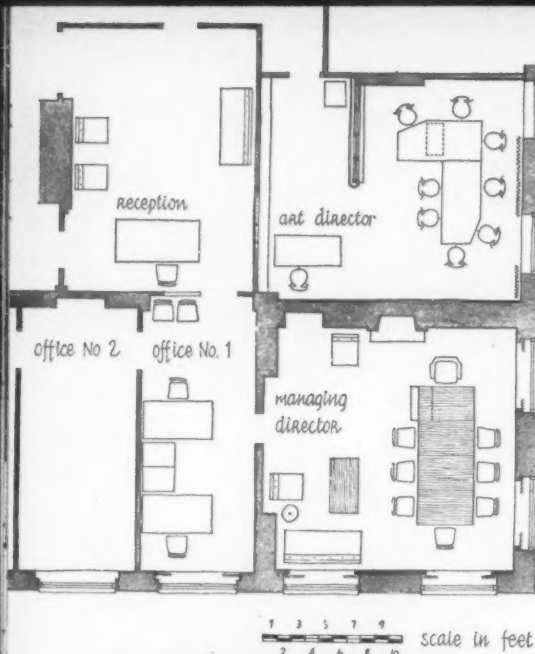


7



8





#### OFFICES IN PARK LANE, W.1

adjacent office and foyer. The Irish tweed upholstery and linen curtains are in black and white or black and green.

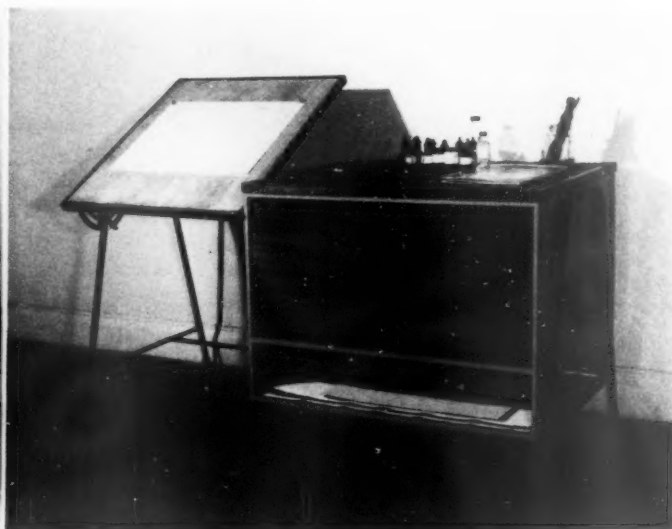
A glass partition between the PA and other office was filled in. Upholstery is in yellow tweed, to contrast with the olive green standard steel desk. What were previously borrowed lights from the foyer into a corridor are now showcases which front on to the foyer and are dressed from the art director's office; the hatches when closed have a woven straw design backing. The foyer ceiling is papered in grey; upholstery is black and yellow, and a mural is to be executed on the wall between foyer and PA's office, extending round the double doors. The entrance wall of the foyer, which stands opposite

the common staircase, has green-black marbled paper.

The art director's office, unlike the rest of the suite, is carpeted in grey hair-cord. Available wall space is given to alternating black and bottle-green display panels. Here also is a combined desk and table for (internal) conferences, the central feature being the inset viewing panel at the director's end. The screen, to warn unsuspecting interlopers that conferences are in progress without interruption, is of light steel and tee and channel sections, with decorative glass. From the yellow ceiling hangs the main lighting batten with 150-watt spotlights; and, suspended from it, a subsidiary batten at right angles with 75-watt spots.



9, close-up of main and subsidiary lighting battens, carrying 150- and 75-watt spotlights respectively.



10, composite drawing-desk for art department.

#### OFFICE IN COTHALL AVENUE, E.C.2

Architects: Farmer and Dark

As part of a general reorganization and redecoration programme, the five senior partners of a young and prosperous firm of stockbrokers required a pleasant modern office for themselves. Their suite occupies part of the third floor in a late Victorian block. Adjacent to and accessible from the Partners' Room is the Dealers' Room where about 25 men (with 120 telephones) quote from the large chalkboard. Sound insulation from this and from street noise was essential. Adequate damping of conversations within the room was also important, and full air-conditioning was required. As a solution one corner of the

11, two desks and reception corner with green Connemara marble panelling; opposite, 12, soundproof door into dealers' room; 13, general view from entrance to reception room, showing double doors of plant room on right. 11

[continued on page 129]



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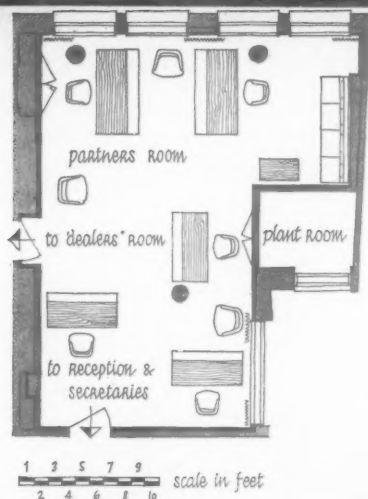
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continued from page 128]

existing L-shaped room was taken up by the air-conditioning plant, with intake through the external wall, and the chamber was carefully soundproofed with felt, acoustic tiles and bronze draught strip. New sliding aluminium sashes were installed inside the existing windows, with Venetian blinds and deep pelmets incorporating fluorescent lighting.

The ceiling is lined with unpainted acoustic tiles on a suspended framework; walls are panelled with  $\frac{3}{4}$ -inch ply-veneer of Lombardy elm, with vertical vee joints

and walnut trims top and bottom. Advantage was taken of existing recesses to form cloak cupboards with secret doors, and bookshelves. The short wall forming one side of the reception corner is panelled in Connemara green marble. The carpet is of bottle-green colour and laid on Dunlopillo. The upholstery of the chairs and settees is in a yellow and black tight woven cloth; the curtains are loose woven and in fawn. Desks are in walnut, topped with either bright red or dark green leather.



12



13

## 2 DESIGN REVIEW

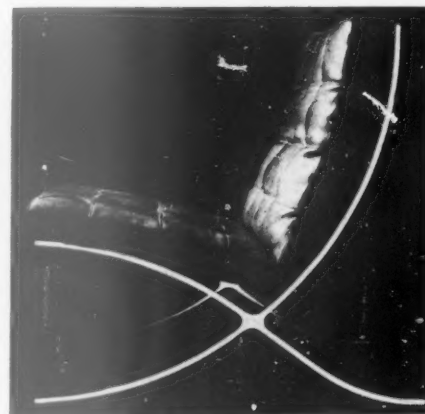
### KNOLL INDEX

The Knoll Index of Contemporary Design has that uncompromising simplicity that is a rebuke for all manner of vagueness, muddled thinking, fringes of velvet bobbles and other minor backslidings from the broad aim of Good Design.

Even on the cover graphic art has been kept strictly to essentials, the five necessary words being embellished simply with a greatly magnified K in primary colours. The foreword states that 'this book is concerned with equipment for contemporary living in terms of human

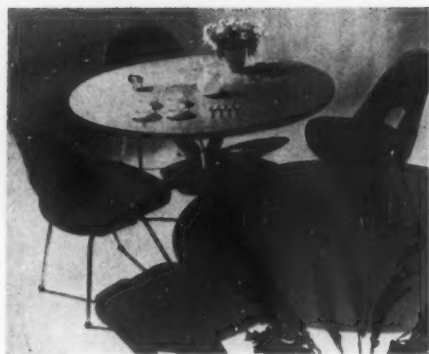
needs'. Not human whims.

Indeed why should one backslide? Often for reasons of price. And because the architectural medley amongst which we live has its effect upon all but the strongest. It says much for the power of Knoll morale that we are questioning ourselves, and not the Index. This is an impressive, even a nostalgic, publication. The collection of chairs opens with Mies van der Rohe's Barcelona chair of 1929, 1. Its character is as marked in its antique as it was in its avant-garde role. It is a rare and illuminating experience to see the



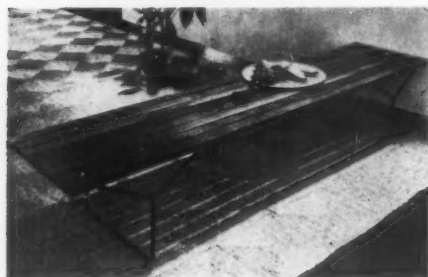
1, Mies van der Rohe's Barcelona chair.

design of the last twenty years shown as an integrated collection. Here are Saarinen's moulded plastic chairs and



2, Bellman table and Saarinen chairs.

Bertoia's form-wire design in the same idiom; Saarinen's long chair and Nordstrom's generous upright chair in ply and metal. In the well-covered field of round tables Bellman's large tripod is



3, Bertoia bench.

outstanding, 2. So is Bertoia's long strong and elegant-looking bench, 3. The outstanding characteristic of this firm, as put over by the Index, is its determination to stick to essentials. Some pieces could be accused of dullness, none of vulgarity. That Knoll Associates have managed to keep their collection of fabrics within the same exacting bounds set for their furniture is a measure of their achievement.

If the purpose of this publication were to convey information, simplicity would have been carried much too far. No prices, only the barest indication of materials, and one cannot rely on photographs to give an idea of workmanship. Its purpose is of course quite other. The wizardry of modern advertising gives the reader of this Index so powerful an impression of simplicity and *quality* that it seems actually to rebuke his way of life. It is the reader's own conscience that delivers him, abject, to the Knoll salesmen.

Diana Rowntree

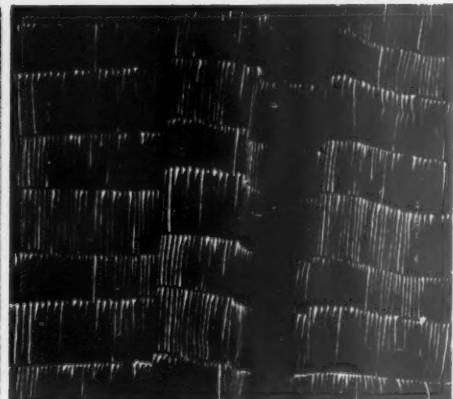
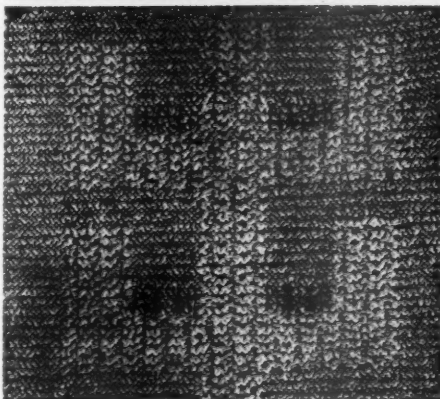
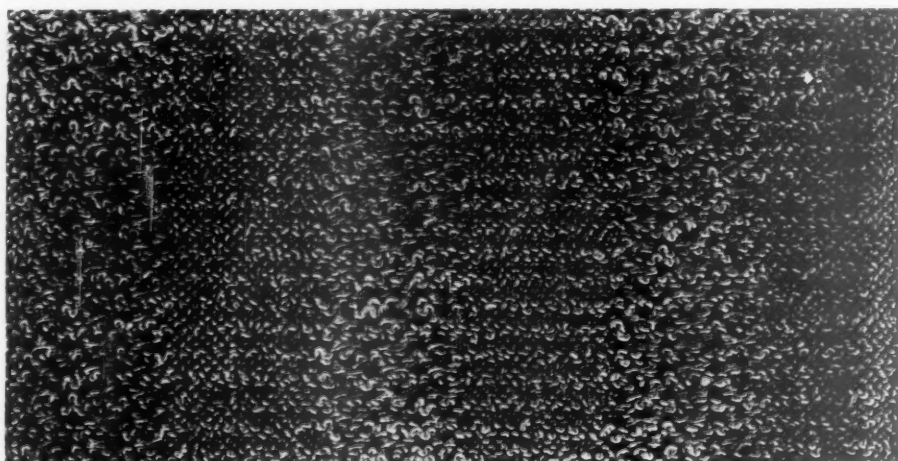
#### LIBERTY'S FURNISHING FABRICS

Designers of woven fabrics, who must work to the limitations of thread and loom, are nowadays generally excused from the broader æsthetic aspect of their work.

During this century we have become increasingly aware of the beauties of texture. We expect the weave designer to exploit the variations of yarns, and delight us with subtle treatment of colour and texture; and he usually does. The two new Tibor Reich fabrics on sale at Liberty's would be hard to beat in this respect. 'Gallery,' price 32s. 6d., is an upholstery material in cotton and rayon of a convenient weight that allows it to be used also for hangings. One thread of brilliant colour is saved from surface wear by the way it is combined with more hard-wearing threads in assonant hues. In the heavier material 'Keytwig,' luxurious white and tinsel is set discreetly among grey, cream and fawn threads. A complex make-up, cotton, ardil rayon, wool is expressed as a complex texture. Both designs make a double use of texture; to enhance the characteristics of the individual yarns for surface interest, and by contrasting textures to produce patterns on a scale proper to furnishings. For this purpose *Gallery*, 1, reads as a simple stripe, and *Keytwig*, 2, with the pattern its name suggests, further enlarges the scale by making the horizontal repeat

twice the size of the vertical. The designer of these fabrics was concerned with subtleties of colour and texture. There is, however, no reason why designers for weave should avoid wide contrasts, and the broader uses of colour. The distinction between the technical approach to weave and print designing must not be confused with the different functions of woven and printed cloth. I see no reason for colour contrasts to narrow in converse ratio to the weight of the cloth. The decorator may want warm, hard-wearing fabric in bold and amusing colours. The uses of a well-textured material are by no means confined to areas that require a gentle monotone. It may indeed be argued that largeness of scale is most likely to be required in heavy fabrics.

One has only to turn to the printed furnishing fabrics of Liberty's own production to see this difference of approach strikingly illustrated. It is almost as though designing for weave were classified as 'Industrial Art' and for printing as 'Fine Art.' The weave designers are preoccupied with their craft to the point where they may lose sight of its end. The print designers are clearly ready and



Three of Liberty's furnishing fabrics: 1, *Gallery*, 2, *Keytwig* and 3, *Combing*.

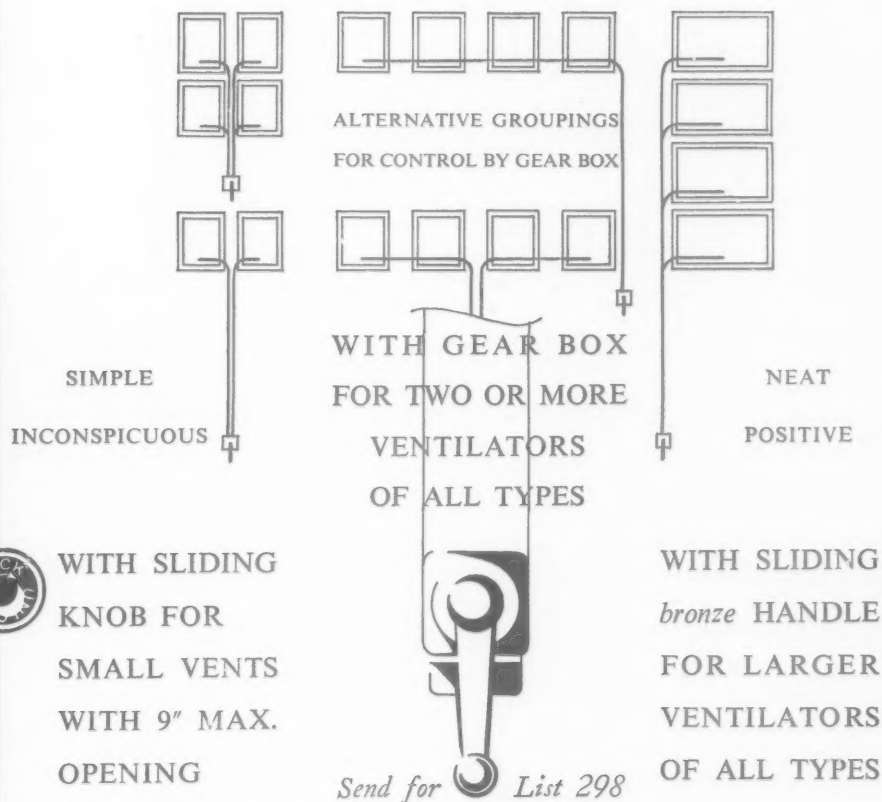
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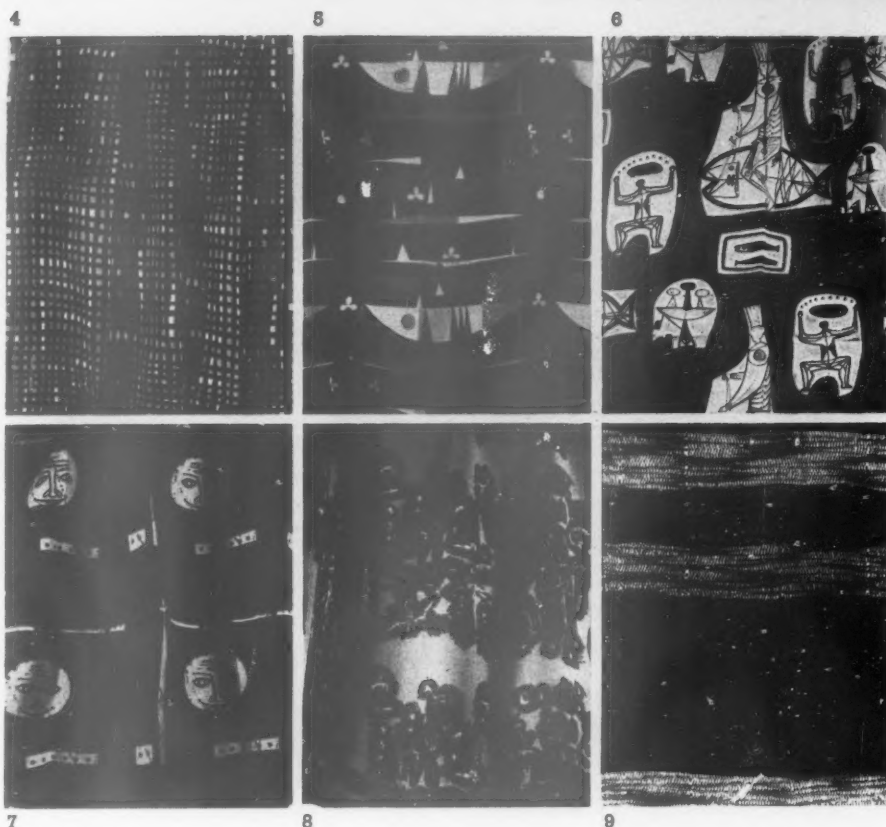
anxious to be amusing, decorative and evocative, but have not always sufficient command of their *métier* to achieve this successfully. In fact the most successful of the prints, Pat Albeck's *Combing*, 3, is the least ambitious. She has approached the matter in the same way as Tibor Reich, her aim being to produce a texture, though in this case it is very properly the texture of a water-colour wash, and not of yarn.

Generally the print designer, unable to find inspiration in choosing and contemplating the actual threads, tends to look further afield. The inspiration of these fabrics is indeed very varied. In a few it has been literary, that is to say the title of the fabric remains more evocative than the fabric itself. *Books* is an amusing idea, but remains a simplified drawing, which has not been translated into surface interest. John Lacey's *City Lights*, 4, has achieved this translation, but the treatment of the line is rather broad for the very small scale of the pattern.

*Raimoult*, 5, and Robert Stewart's *Macramanish*, 6, exhibit the most stimulating painterly influences—Picasso, Klee, Keith Vaughan and certain Danish work. But the individual drawings of *Macramanish* and the excellent colour of *Raimoult* remain more memorable than the repeated pattern.

In Stewart's *Sunman*, 7, the drawing is in fact subordinated to the admirably organized design, but the fabric is spoiled by the whimsey of the recurrent face. This is particularly unfortunate because the blue slate colour is not only very beautiful but one immensely useful to decorators.

A later addition to the range of prints is Martin Bradley's *Tampico*, 8. He achieves two characteristics rare and ever sought among furnishing textiles, brilliance of colour and a rich effect. And this with great economy of means. The special character is the result of the skilful relation of the smudgy line like charcoal, and the spongy weave on which it is printed. It seems curious that such homespun constituents should produce sophistication. In fact, though the freedom of the draughtsmanship is uncompromisingly contemporary, the design, particularly in the yellow print, happens to be extremely flattering to classical hardwood furniture. It is a useful print too in the sense that the colour is robust rather than delicate, and looks as though it would stand up to wear. This cotton



Six more fabrics in Liberty's range: above, 4, *City Lights*, 5, *Raimoult*, 6, *Macramanish*. Below, 7, *Sunman*, 8, *Tampico* and 9, *Aleppo*.

fabric has a dignity and scale far beyond its price range, 18s. 9d. per yard.

The most notable fabric in Liberty's range Marianne Straub's *Aleppo*, 9, does meet up with the most exacting requirements. This is woven in a cotton-wool-rayon mixture, which one assumes will be warm and lasting, and in the versatile medium weight so kindly to shoppers. The price, 29s. 9d., is rather below medium. The large scale of the design, a plaid with 12 in. by 8 in. repeat is equalled

by maximum colour contrast, black-white-yellow. The bright colour is used in small areas, against a dark warp and given its greatest value by the larger areas of very interesting neutrals. One of the most pleasing subtleties of these is the introduction of a warm brown. This is a most impressive weave. Combining breadth of design with depth of textural treatment it obligingly affirms that in asking just that of the designer I am not asking too much.

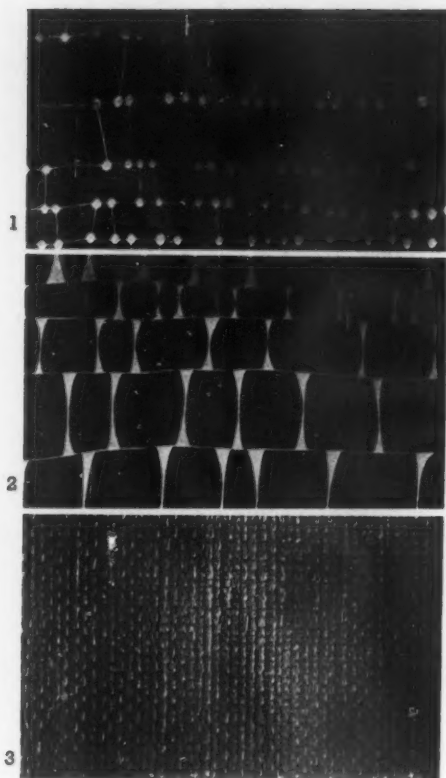
Diana Rowntree

#### PLASTIC FURNISHING FABRICS

Synthetic fibres, having no inherent character, should offer designers their most complete and perfect scope. In fact such materials seldom enjoy the services of the best designers. The plastic furnishing fabrics on sale at Primavera are a happy exception. Designed in Germany by Professor Bode, they have exactly the scale and manner that makes a material useful to the decorator, rather than a chic but exacting object, 1 and 2. The range of designs is extremely wide, and though there is an excellent selection in black and grey and white, at present

so much in demand, there are many other colour schemes which contrive to be imaginative and useful at the same time. These materials come in two weights. The lighter, for hangings, is retailed from 14s. per yard, 52 inches wide; the heavier upholstery weight at 22s. 9d. per yard.

The modesty which causes a plastic wall-paper, 3, to conceal the novel virtues of its finish beneath an appearance of woven straw seems altogether misplaced. This tough and washable wall surface is in fact a virgin field awaiting the skill and imagination of a designer. The 10 yard roll, 22 inches wide costs £3 18s. 6d.



Three plastic fabrics from the Primavera range.

*Yak* is a plastic fabric finished to an excellent imitation of suede, on a very strong canvas backing. While giving the warmth of suede, it can be sponged without leaving the slightest mark. The price is approximately 51s. per yard 52 inches wide.

D. R.

## BOOK OF WALLPAPER

There is a growing public with a taste for wallpaper only too eager for a systematized account of this industry which has had such a close and happy association with art. E. A. Entwisle in his *Book of Wallpaper*\* uses the historical method. He tells the story of the English wallpaper trade and the influences that stimulated it from the sixteenth century up to the present day. He has made skilful use of quotations and delightful illustrations admirably related to the text, to maintain the excitement of the subject while he proceeds with the full historical account. Particularly alluring illustrations were those of designs deriving from renaissance embroidery, known as 'black and white work,' fragments of paper found lining drawers, and such stately rooms as the marble dining room at Ham House. One is led on to plan expeditions to some of the sources.

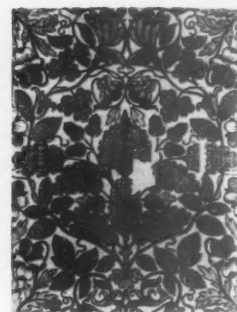
The remark here quoted of Owen Jones', 'form without colour is like a body without a soul,' could be taken to apply to a book on wallpaper. Only three of the many illustrations are in colour. But if many more had been, few of us would have been able to afford the book.

Mr. Entwisle has kept firmly to the main highway of wallpaper design, concentrating in the modern section on mass-produced papers for the widest market. His examples from this price level

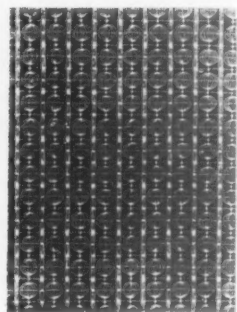
are well chosen. Nevertheless a history of English wallpaper making can hardly be complete without some mention of Cole & Sons (Wallpapers) Limited who are still using seventeenth century blocks. It was Coles who took the initiative in printing the modern designs by Aldridge and Bawden that Mr. Entwisle mentions. This omission raises doubts as to the scholarship of the earlier chapters which I am not equipped to judge.

Mr. Entwisle shows the relationship between commercial enterprise, technical discoveries and the trends of art very clearly. Unfortunately his very considerable power of historical presentation is greater than his prose style. This becomes stilted as he struggles gamely to a conclusion. D. R.

\* *The Book of Wallpaper: a history and an appreciation.* E. A. Entwisle. Arthur Barker. 30s.



1, box lining paper, c. 1615, found in Oxford University archives.



2, machine-printed contemporary wallpaper designed by Robert Nicholson.

## 3 TECHNIQUES

### TWO HEATING TESTS

by John Arkwright

Last winter saw the completion of two tests of two different types of domestic heating equipment which may do much to alter our ideas of heating small houses. The first of these was a three months' test carried out in five maisonettes in Coventry of a prototype combination cooker, hot water heater and warm air space heater which is being developed by Radiation Ltd. The second was a four years' test to establish the relative efficiency of a heat pump as against an immersion heater for providing under floor heating in a bungalow, carried out at Norwich by J. A. Sumner of the Eastern Electricity Board.

The interest of these tests is widely different: the Radiation prototype, which bears the trade name of the 'Heatmaster,' is a piece of equipment which is shortly to come on the market: the issue at stake is whether it is feasible to provide all the heating needs of a small house from one source and whether it can be done economically. The heat pump test, on the other hand, concerns a piece of equipment which is at an earlier phase in its develop-

ment, though it is likely to be on the market in 1955-56. It differs from the two heat pumps now on the market in that these only aim to provide a reciprocating service of refrigeration and hot water supply.

What these tests have in common is the fact that in their different ways they both provide whole house heating—and hence both permit open planning—at a cost which is considerably less than what we have come to accept.

#### the 'heatmaster'

The 'Heatmaster' is a solid fuel cooker of the insulated type with an L-shaped boiler and with the bottom length of the flue converted into a heat exchanger. The oven temperature and the hot water supply are controlled by an oven thermostat which varies the rate of burning. The air temperature is controlled by a room thermostat which operates a fan, which in turn forces air through

the heat exchanger. Since the warm air output is virtually constant to maintain the preselected room temperature—whatever the setting of the oven—the space heating is independent of demands on the boiler.

The maisonettes at Coventry were small, with a total floor area of only 704 square feet: they were designed (by D. E. E. Gibson, lately City Architect and Planning Officer) with an open plan on the ground floor and with good, though not exceptional, standards of insulation. Four of the maisonettes were tested merely for fuel consumption and tenant reaction; the fifth (which was empty) was tested for temperature distribution. A special feature of the furnace is that it can operate on coal or coke, for it burns on the down-draught principle when using coal and on the up-draught principle when using coke. In both cases the average weekly consumption in therms was 29.2. This when burning coke cost 12s. 6d. per week, when burning coal 11s. 5d. per week. These figures are about two-thirds those which you would expect from the cheapest alternative means now available for producing broadly the same results: namely a daytime temperature of 60-65°F downstairs and of 53-58°F upstairs. A characteristic of air heating is even distribution: at 60°F the horizontal variation throughout the ground floor at 4 feet level was only 1°F and



*Christ Church Cathedral, Oxford, from a recent painting by Felix Kelly.*



*Christ Church Cathedral, Oxford, is a fine illustration, in one building, of architectural development from Norman to Tudor times. But it is very much a living church and attracts large congregations. An oil-fired heating system was installed in 1950.*

## CHRIST CHURCH CATHEDRAL HAS A MODERN HEATING SYSTEM

*It is kept comfortably warm by oil-fuel.*

**A** CATHEDRAL CHURCH, many centuries old, is not the easiest of buildings to maintain at a comfortable temperature, one would think. But Christ Church has no heating problem. It has an oil-fired heating system—the last word in efficiency, cleanliness and ease of maintenance. The building is quickly warmed up to the temperature chosen and kept at this temperature for as long as is required.

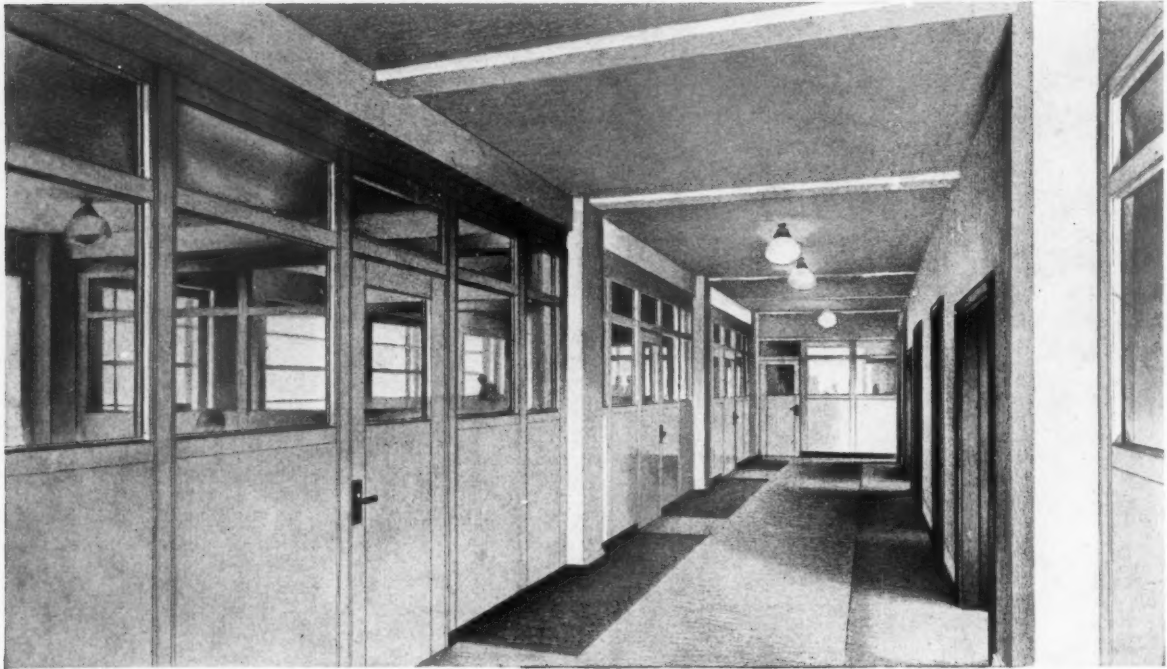
There is no difficulty about mainten-

ance. There is no stoking to be done. No ash to clear away. The system virtually runs itself. And because oil is such a clean-burning fuel there is the minimum of atmospheric pollution—an important point in a city of so many architectural beauties as Oxford.

These advantages of oil-fired heating are equally important in many other public buildings—in blocks of flats and offices, in hospitals and schools, in factories and large stores. In largish private

houses, too, there is every reason for using this labour-saving, automatically controlled heating system. Have you considered making provision for oil-firing in any of the buildings you are designing or modifying? For detailed information of a technical nature please write to Shell-Mex and B.P. Ltd., Fuel Oil Dept. 13G, Shell-Mex House, Strand, London, W.C.2. A representative will be glad to answer your queries, and this will, of course, place you under no obligation.

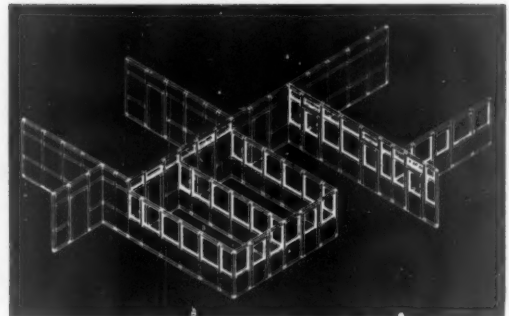
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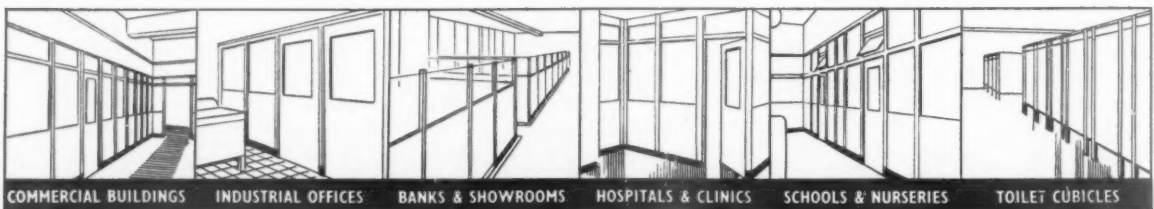
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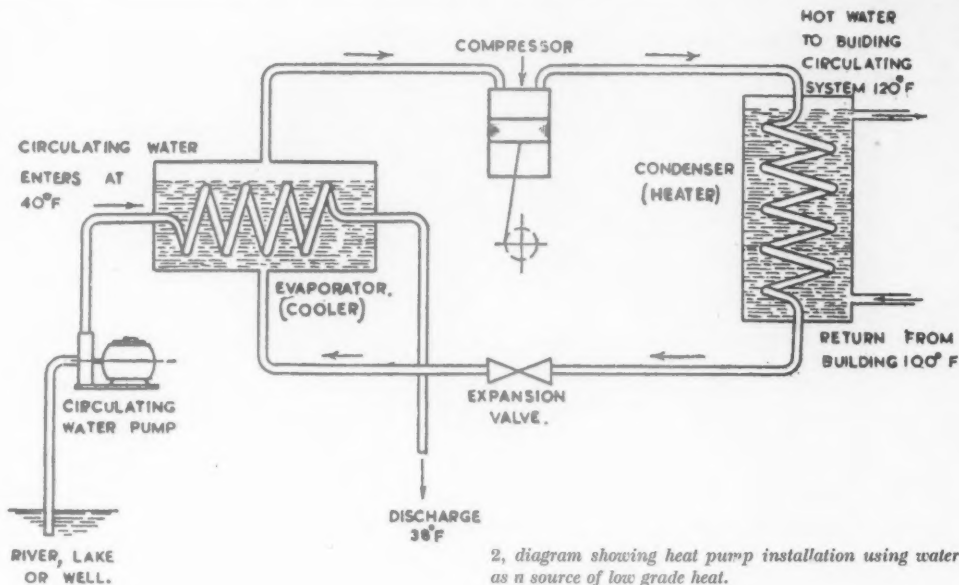
the vertical variation between 1 and 7 feet levels was only 5°F.

It must in fairness be pointed out that these tests were of relatively short duration, that they were made by the manufacturers themselves and that we do not yet know the first cost of the equipment. But assuming that no serious deceptions are in store, they should mean that full as distinct from mere background heat plus 'topping up' is in the reach of income groups which are very large and which have never before been able to consider it.

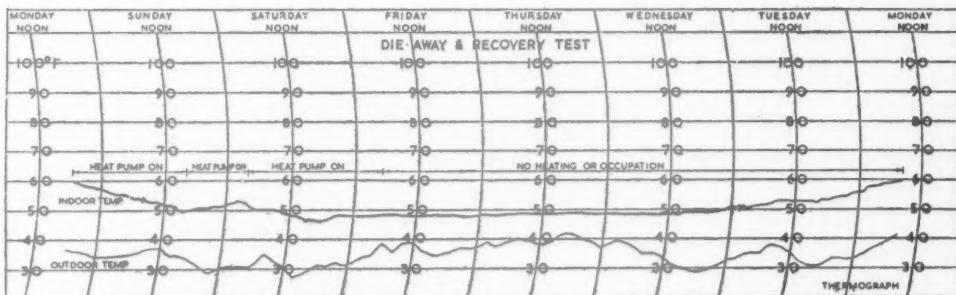
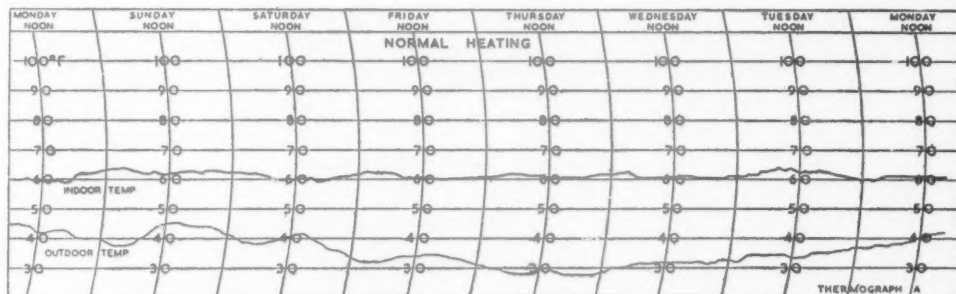
### the heat pump

Mr. Sumner's Heat Pump represents a more fundamental approach to the same problem. Mr. Sumner is a pioneer of the development of the Heat Pump in this country; he was the prime mover behind the 'Norwich Heat Pump' which was so much in the news a few years ago. The objective of the Heat Pump is, of course, the conversion of low grade heat—which is present in unlimited supply in earth, air and water—into high grade heat, that is, heat at temperatures which can be used. The energy needed to bring about this change is only of the order of one-third to one-fifth of the energy produced. Mr. Sumner in introducing his paper to the IHVE suggested that the decisive factor favouring the Heat Pump here and now is not its potential cheapness as against solid fuel but the fact that our supply of solid fuel during the next ten years is going to fall so far short of our domestic needs that we will be obliged to find an alternative; and that, pending the harnessing of atomic energy, low grade heat is the only alternative to hand.

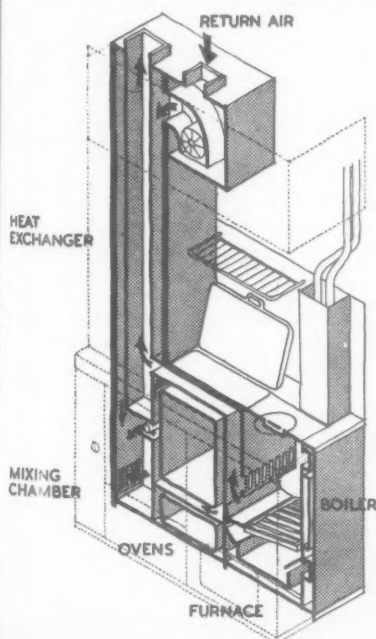
The operation of the pump is as follows: a ground coil (i.e., a pipe passing through the earth, through which an anti-freeze liquid is forced by a pump) circulates a methanol-water mixture at a temperature varying between 20–40°F into an evaporator; within this evaporator is a refrigerant which takes this low grade heat from the anti-freeze liquid and, in doing so, changes from a liquid to a gas; this is then drawn into a compressor (here driven by electricity) when it is compressed to



2, diagram showing heat pump installation using water as a source of low grade heat.



3, thermographs comparing indoor and outdoor temperatures in the bungalow, above for normal heating and below for a die-away and recovery test. Both should be read from right to left. The lower thermograph is particularly interesting in that it shows that it takes about 36 hours to lower the indoor temperature from 60°F to 50°F and rather less than 24 hours to raise it by the same amount.



1, schematic sketch showing the circulation of air in the "Heatmaster".

a pressure at which it reaches the useful temperature required (here 125°F): having reached this temperature it passes to a calorifier (or condenser) where it gives up the heat to the water which is the circulating medium. The 'useful temperature' of the refrigerant may vary considerably according to the amount of pressure applied, but the 'reciprocal thermal efficiency' (R.Th.E.), to use Mr. Sumner's phrase, is greater in inverse proportion to the temperature required. It was this consideration which influenced his choice

\* Reciprocal Thermal Efficiency =

Max. temperature given (expressed as an absolute temperature).  
Difference between max. temperature and the original temperature of the low grade heat.

of under floor heating. A convective system using radiators would require water at 180°F. This, assuming an intake at about 35°F, would give an ideal R.Th.E. of 4.41. Floor panel heating, on the other hand, requires an upper temperature limit of only 130°F which gives an ideal R.Th.E. of 6.21, i.e. is over 40 per cent more efficient. Air heating, which requires an upper limit of 120°F, might have proved even more favourable.

The area of Mr. Sumner's bungalow is 1,650 square feet. It is of ordinary 11-inch cavity brick construction. The under floor heating is of the usual design with 3/4 inch bore copper pipes spaced 12 inches apart and buried 2 inches down in a 5-inch concrete raft. During the winter of 1950–51 the system was heated by an

immersion heater and during the subsequent winters by the heat pump. The test, therefore, was concerned equally with determining what were in fact comfort conditions as with the relative economy of the two sources of power. On this first point we note that after much experiment a room thermostat reading of 61°F was found to be most satisfactory, though it was also found that, so long as the floor temperature was about 55°F, room air temperatures as low as 55°F were often acceptable.

Figures were obtained for keeping the temperature of the bungalow at 60°F and at 65°F throughout a heating season of 196 days. This required 70 and 90 million B.Th.U.s respectively, quantities of heat which



cost £87 and £109 to obtain using the immersion heater, but only £31 and £39 using the heat pump. Mr. Sumner also calculated that the cost using coal or coke at 40 per cent efficiency would work out at £54 and £69.

Of the three heating seasons during which the heat pump was operating, the first two (i.e. 1951-52 and 1952-53) were experimental in the fullest sense: Mr. Sumner tried out the use of air as an alternative low grade heat source and the heat pump itself was being nursed through its teething troubles; heating by the pump was therefore only intermittent. It was only during the winter of 1953-54 that its operation was virtually continuous.

The running cost is, of course, the startling figure. It is no disparagement to Mr. Sumner's test to notice that the running costs of any installation tend to vary so considerably from year to year that even an average figure over four years has only a limited value. Nevertheless it

is interesting to compare the figure of £87 per heating season of 196 days for maintaining a temperature of 60°F by means of the immersion heater with some figures given by E. M. Ackery at this year's Annual Conference of EDA. In these it was shown that to provide background heat of 55°F (i.e. 5°F less) in a 1,500 square foot detached house of good construction for a heating season of 210 days—i.e. data roughly comparable to Mr. Sumner's bungalow—would require 24,600 kW hours. This, at the usual rates, would cost £109 18s. This for maintaining an average temperature lower by 5°F. Mr. Ackery's figures also show that a 5° difference in the background heat over a heating season very nearly doubles the kWh (and hence the cost). All this goes to suggest that, Heat Pump or no Heat Pump, under floor heating is a less expensive means of maintaining a steady temperature over long periods than the other means in common use.

Once more the vital missing

figure is the first cost of the equipment and (perhaps even more important) the maintenance costs. Mr. Sumner gave it as his opinion that quantity production could bring the cost of the unit down to something of the order of £150-£200. This would certainly be a great advance on the figure of £650 given by Miss V. M. Griffiths of BEDA, speaking to the Institute of Refrigeration last November. Architects will also be interested to notice that Mr. Sumner's labour and materials costs for the under floor heating (including the circulating pump) were only £100. As he points out, this is a third less than the kind of quotations the trade has been giving for installations of this type and size.

#### conclusion

Fuel is a baffling subject, beset by every sort of contradiction. It is made even more baffling for the architect than it need be by the fact

that he is confronted by three public authorities (to whom we must now add the oil companies) all of whom produce convincing evidence to show that their fuel is the most advantageous. The tests we have been reviewing are in reality less concerned with fuel as such than with methods of applying it. For Radiation Ltd.'s whole house heating has been applied equally to gas and to oil, while the heat pump compressor can be operated by other than electrical motors. These tests concern the architect first because they offer him an end product—whole house heating—on terms which appear far more favourable than heretofore, and second because in order to obtain it he must plan for his heating carefully in advance. Architects, therefore, who have small houses or maisonettes to build next year would do well to add these two heating methods to their list of likely alternatives and to start thinking about them from the beginning.

## 4 THE INDUSTRY

### CURTAIN WALLING

The Cape Asbestos Company is a firm which is taking its duties towards architects and towards building particularly seriously. No longer content with issuing a product and with leaving it to others to do their best with it they have been engaged on a long series of experiments with architects ('development work' as we have come to call it). As a result, they have now extended their field of vision to a series of claddings which incorporate their own 'Asbestolux' but incorporate also various other proprietary materials which are required to make a four-square cladding unit.

All claddings have an inner skin of Asbestolux separated by a vapour barrier (of Kraft paper) from a core of 'Rocksil.' When the outer skin is also Asbestolux this is backed by a bitumen-coated sheathing paper to act as a damp barrier. This basic construction may either be compact, when it is described as 'a double skin unit,' or with cavities between each element, when it is described as 'separate skin construction.' But the chief variety in the range lies in the external facing, which may take the form of a finish applied direct to the Asbestolux, a rigid material bonded to the Asbestolux, or a metal tray which becomes a substitute for the Asbestolux outer skin. An interesting variation of the first group is that used at Chaddesden Secondary School (AR, July 1955) by the

Architects' Co-Partnership, which comprises a melamine-based stove enamel behind an outer skin of glass (see photo).



Cape Asbestos cladding being fitted to Chaddesden School.

Two materials are put forward for bonding to Asbestolux: aluminium and Plyglass (which last was used, incidentally, at the Loewy offices at Poole by Farmer and Dark); while the final choice is an 18 s.w.g. steel tray with vitreous enamel finish back and front which renders the outer skin of Asbestolux unnecessary. All of these seem likely to offer an enduring

front to the weather: more critical is the method of jointing, for no-one knows how long mastic compounds will remain flexible. Long enough, it seems, to justify us in persevering with them. *The Cape Asbestos Co. Ltd., 114-116, Park Street, London, W.1.*

### A NEW BUILDING BLOCK

We are repeatedly drawing attention in these columns to new building materials made from pulverised fuel ash. A newcomer to the list is Thermalite, a lightweight building block. It is very characteristic of the present trade conditions that this material was first pioneered not by a manufacturer but by a building contractor. For development work on Thermalite was carried out by the research department of John Laing and Son Ltd., and it is only recently that a separate company, Thermalite Ltd., was formed to handle the material on the general market.

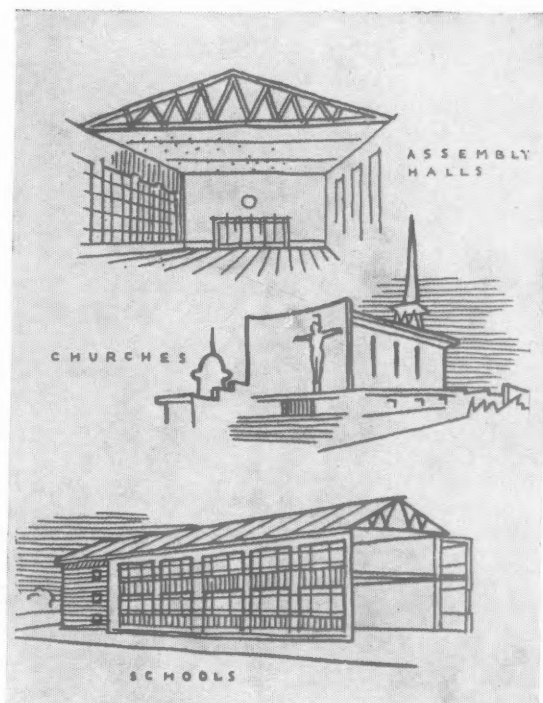
Thermalite is lightweight, weighing only 50 lb. per cubic foot, is load-bearing (with a compressive strength of 750-800 lb. per square inch) and has high thermal resistance (with a K value of 1.4). Delivered in blocks 18 inches by 9 inches by 3, 4 and 6 inches, it has the unusual quality of being easily sawn and shaped. Lending itself to easy and rapid sitework (as you would expect from a material originating with a contractor) it can be laid three times as fast as brickwork. Lastly, it is presented to architects with trade literature which gives them all the facts they could possibly want to know. *Thermalite Ltd., Shepherd's House Lane, Earley, Reading, Berks.*

[continued on page 136]



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#### A PENDANT LIGHT FITTING

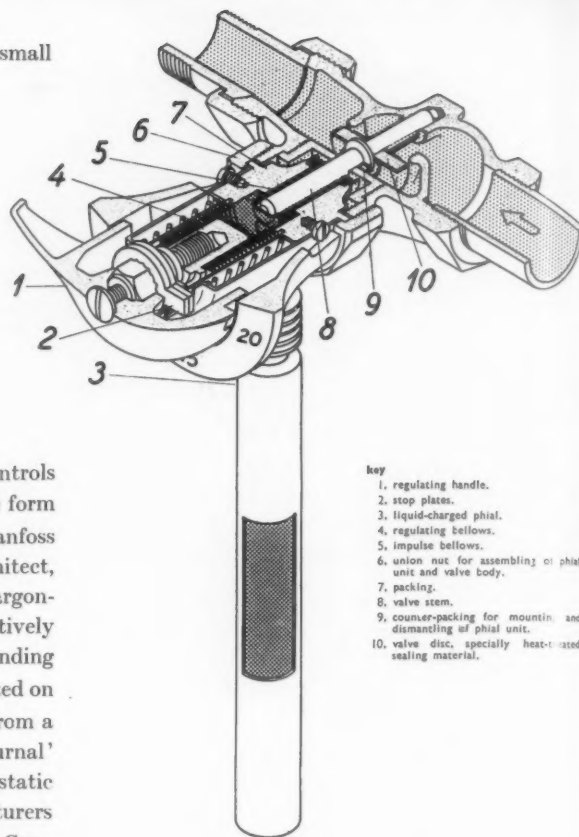
The Ventura 80, designed by the architect Paul Boissevain and manufactured by Merchant Adventurers, is, technically, a convincing attempt to meet the conflicting requirements of the pendant fitting. A translucent plastic diffuser with louvres



at the base shields the bulb from all usual eye positions, yet gives a 45° cut-off angle. Nothing but the minimal lampholder (in satin silver anodized aluminium) keeps light from the ceiling, and the free passage of air through the louvres and through the lampholder itself should ensure cool working conditions and thence long life for the bulb. *The Merchant Adventurers of London Ltd., Ventural Division, 43, Portland Road, London, W.11.*

#### AUTOMATIC CONTROLS

The technical trade literature of small countries is more easily understandable by the architect (provided it is presented in his language) than our own; the reason being that the absence of specialist consultants compels manufacturers to address themselves to the architect direct. A good example is the trade literature published in the English language by the Danfoss Manufacturing Company of Denmark, who specialize in automatic controls for heating installations. This, in the form of a catalogue, and the quarterly 'Danfoss Journal,' describe to the English architect, by means of careful drawings and jargon-free English, mysteries which are effectively veiled from him in the corresponding literature of his own country. Illustrated on this page is a drawing reproduced from a recent issue of the 'Danfoss Journal' showing the workings of a thermostatic radiator valve. English manufacturers please note. *Danfoss Manufacturing Company, 69, Victoria Street, London, S.W.1.*



- key
1. regulating handle.
  2. stop plates.
  3. liquid-charged phial.
  4. regulating bellows.
  5. impulse bellows.
  6. union nut for assembling of phial unit and valve body.
  7. packing.
  8. valve stem.
  9. counter-packing for mounting and dismantling of phial unit.
  10. valve disc, specially heat-treated sealing material.

[continued on page 138]



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**Primary School at Harlow New Town. Architect:** H. T. Cadbury-Brown. **General contractor:** David Chaston Ltd. **Sub-contractors:** bricks: R. Y. Ames Ltd. **Drain pipes:** B. Finch & Co. **Steelwork (trusses):** Tubewrights Ltd. **Roofing:** Permanite Ltd. **Woodwool:** Halcete (Precision) Panels Ltd. **Windows and cowl hood to kitchen:** Crittall Mfg. Co. **Oil burner equipment and extract fan:** Coleman & Hosking. **Glass dome lights:** T. & W. Ide Ltd. **Sanitary fittings:** John Bolding & Sons Ltd. **Thermoplastic flooring:** Armstrong Cork Co. **Wood block flooring:** Horsley Smith & Co. (London) Ltd. **Tiling:** B. Finch & Co. **Paint, distemper, emulsion paint:** Duresco Products Ltd. W.c.

**cubicles:** Flexo Plywood Industries Ltd. **Rolling shutters:** Haskins. **Flush doors and counter top:** John Sadd & Co. **Cloakroom fittings:** Yannedis & Co. **Door furniture:** Alfred G. Roberts Ltd. **Lightning conductors:** W. J. Furse & Co. **Surfacing of playgrounds, paths and roads:** Constable, Hart & Co. **Gates:** Bayliss, Jones & Bayliss Ltd.

**Secondary School at Hornsey, N.10. Architect:** Richard Sheppard & Partners. **Associate Architect:** Gordon Taylor. **General contractors:** F. G. Minter, Ltd. and A. Roberts, Ltd. **Sub-contractors:** Excavation and foundation: A. Roberts, Ltd. **Dampcourses:** Callendrite, Ltd. **Reinforced concrete supplied by:** F. G. Minter, Ltd. and Indented Bar & Concrete Eng. Co. **Bricks:** Pratts (Watford) Ltd. and A. Turner & Sons. **Structural steel:** Boulton & Paul Ltd. **Roofing felt:** Kent Asphalte Co. **Partitions:** London Brick Co. **Patent glazing:** Haywards, Ltd. **Woodblock flooring:** Hollis Bros. **Patent flooring:** Marley Tiles Co. and Granwood Flooring, Ltd. **Waterproofing materials:** R.I.W. Protective Products, Ltd. **Central heating and gas fixtures, gasfitting and boilers:** Benham & Sons. **Electric wiring:** Electric Installations, Ltd. **Electric light fixtures:** Falk Stadelmann & Co. and Merchant Adventurers of London, Ltd. **Ventilation:** Fenton Byrn & Co. **Plumbing and water supply:** G. N. Haden & Sons. **Sanitary fittings:** John Bolding & Son. **Stairtreads:** Art Pavements & Decoration, Ltd. **Door furniture and casements:** James Gibbons Ltd. **Rolling shutters:** Tidmarsh & Sons. **Plaster and joinery:** F. G. Minter, Ltd. **Metallwork:** George Wright, Ltd. **Joinery:** Nathan Agran, Ltd. **Tiling:** Carter & Co. **Wallpapers:** Arthur Sanderson & Sons. **School fittings:** Olympic Gymnasium Co. and Esavian, Ltd. **Cloakroom fittings:** B. Finch & Co. **Clocks:** Gents, Ltd.

**Primary School at Garston, Watford, Herts County Architect:** C. H. Aslin. **Architect in charge:** R. C. N. Paul. **General contractors:**

**Kirk & Kirk Ltd. Manufacturers and suppliers of timber frame:** Elliott & Sons (Reading) Ltd. **Sub-contractors:** roofing: William Briggs & Sons. **External screens:** Morris Singer Co. **Internal screens and plywood generally:** C. V. Creffield & Co. **Heating:** Weatherfoil Heating Systems, Ltd. **Internal doors:** Walter Lawrence & Son. **Semantic floors:** Semtex Ltd. **Wood block floors:** Vigers Bros. **Sanitary fittings:** Adamsez Ltd. **Fencing:** Penfold Fencing Ltd. **External doors:** Jayanbee Joinery Ltd. **Internal metallwork:** The Standard Range & Foundry Co. **Pressed Steel water tanks:** Braithwaite & Co. **Precast concrete copings and curbs:** Oak Concrete Tru-Bloc Ltd. **Internal lettering:** Comyn Ching & Co. **Blinds:** Venetian Vogue Ltd. **Ironmongery:** Mountford Bros. **Door mats:** The London Woodshops for the Blind. **Curtains:** Gerald Holton Esq. **Kitchen extract fan:** Greenwood & Airvac Ventilation Co. **Aluminium rooflights:** J. Gibbons Ltd. **Gyproc ceilings:** Gyproc Products Ltd. **Slate cills:** The Bow Slate & Enamel Co. **Precast concrete flooring:** Concrete Ltd. **Rainwater pipes:** T. I. Aluminium Ltd. **Boiler flue:** Trullue Ltd. **Cerebos floor tiles:** William Lockhart Ltd. **Copper waste fittings:** Econa Modern Products Ltd.

**Police Housing at Highgate, N.W.5. Architects:** Metropolitan Police District Architects' Dept. **Senior Architect-in-charge:** S. J. Hanchet. **General contractor:** W. Lawrence & Son. **Sub-contractors and suppliers:** Facing bricks: S. A. Hunter Ltd. **Metal balustrading:** Light Steelwork Ltd. **Ironmongery:** Yannedis & Co. **Kitchen fittings:** Jayanbee Ltd. **Fuel hoppers and fireplaces:** Broad & Co. **Sanitary fittings:** Ashley Brandon Ltd. **C.W. storage tanks:** Braithwaite & Co. **Electrical installation:** Duncan Watson Ltd. **Lift:** Keighley Lifts Ltd. **Thermoplastic flooring:** Marley Tile Co. **Fencing:** Darlington Fencing Co. **Garden work:** Sullivan & Co. **Store paint:** Sealantex. **Lettering:** Lettering Centre. **Metal clothes posts:** Hill and Smith Ltd.

[continued on page 140]



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A.C.O.I.



continued from page 138]

**Factory at Harlow New Town for Standard Telephones & Cables Ltd. Architects:** Harlow Development Corporation. **General contractors:** Wilson Lovatt & Sons. **Sub-contractors:** dampcourses: Permanite, Ltd. **Asphalt:** Wainwright Paving & Contracting Co. and Field & Palmer, Ltd. **Reinforced concrete:** Holst & Co. **Shell roof:** Twisteel Reinforcement, Ltd. **Bricks:** Eastwoods, Ltd. and London Brick Co. **Artificial stone:** Stuarts Granolithic Co. **Structural steel:** Sommerfelds, Ltd. and Power & Deane Ransome's, Ltd. **Roofing felt:** Engert & Rolfe, Ltd. **Partitions:** Henry Hope & Sons. and Geo. M. Hammer & Co. **Patent glazing:** Faulkner, Greene & Co. **Wood strip flooring:** Acme Flooring & Paving, Ltd. **Patent flooring:** Marley Tile Co. **Waterproofing material:** Kerner-Greenwood, Ltd. **Central heating:** Bearfoot & Bryett, Ltd. **Electric wiring:** Standard Telephones & Cables, Ltd. **Boilers:** Le Mont Steam Generator, Ltd. **Electric light fixtures:** General Electric Co. **Stairtreads:** Small & Parkes, Ltd. and Bowes, Scott & Western, Ltd. **Door furniture:** Lockerbie & Wilkinson, Ltd. and Yale & Towne, Ltd. **Folding gates:** Bolton Gate Co. **Roller shutters:** Arthur L. Gibson, Ltd. and G. Brady & Co. **Plumbing:** Henry Tattersall, Ltd. **Sanitary fittings:** John Bolding & Sons. **Plaster:** Southern Counties Plastering, Ltd. and Jeffries & Grant, Ltd. **Metal work:** V. M. E. Engineering, Ltd. **Joinery:** P. H. Barker & Sons. **Marble:** Anselm Odling & Sons. **Tiling:** Zanelli, Ltd. and Parkinsons, Ltd. **Textiles:** Heals' Contracts, Ltd. **Wallpapers:** Arthur Sanderson & Sons and John Line & Sons. **Shop fittings:** A. Davies & Co. **Lifts, cranes:** Herbert Morris, Ltd. **Clocks:** Synchronome, Ltd. and Chatwood Safe & Engineering Co. **Signs:** I.P.S. Ltd. **Water softening plant:** Permutit Co. **Paints:** British Paints, Ltd. and J. & B. Abbott (Contractors) Ltd.

**Offices in Copthall Avenue. Architects:** Farmer & Dark. **General contractors:** Sims & Sims, Ltd. **Sub-contractors:** acoustic ceiling: Horace W.

**Cullum & Co. Metal sliding sashes as inner of double windows:** John Thomson Beacon Windows, Ltd. **Marble wall facing:** J. Whitehead & Sons. **Metal venetian blinds:** Crittall Mfg. Co. **Supply of air-conditioning plant:** The Lightfoot Refrigeration Co. **Installation of air-conditioning plant:** C. W. Hubbard & Co. **Carpets and foam rubber underlay:** Vineys of Abingdon. **Rubber tile floor:** Metropolitan Rubber (Industrial) Ltd. **Armchairs:** Heal's Contracts, Ltd. **Desks and desk chairs:** Hille of London, Ltd. **Bracket lights:** George Forrest & Son. **Electrical contractors:** A. W. Goddard & Sons. **Electric clocks:** Gent & Co. **Wood panelling veneers:** Wm. Mallinson & Sons. **Gas convector heaters:** John Harper & Co. **Curtains:** Primavera (London), Ltd. **Leather door:** Morris Singer Co. **Special door furniture:** James Gibbons, Ltd.

**Offices in Park Lane, W.1. Designers:** Peter Miller and F. H. K. Henrion. **General contractors:** Gee, Walker & Slater, Ltd. **Sub-contractors:** furniture: Hille of London, Ltd. **Light fittings:** Merchant Adventurers, Ltd., Bernard Schottlander, Esq. and R. E. Ward, Ltd. **Carpets:** Stockwell Carpets, Ltd. **Curtains:** Heal & Son. **Photostats:** Abbey Studios, Ltd. **Additional contractors:** reception room and secretary's office furniture: Conran Furniture and Roneo, Ltd. **Display panel:** F. E. Ward, Ltd. **Wall papers:** Crown Wallpapers, Primavera and A. Sanderson & Sons. **Director of Visual Planning's office furniture:** F. E. Ward, Ltd. (also light fittings, glazed screen, art department desks), and Finmar, Ltd. **Light fittings:** Herbert Terry & Sons and George Forrest & Son. **Carpets:** Story & Co. **Curtains:** Tibor, Ltd. and Michael O'Connell. **Wall paper:** Cole & Son. **Art department desks:** Truecrete Products.

**Offices in Aldford Street, London, W.1. Designer:** R. D. Russell. **General contractors:** Hubert Powell & Partners. **Sub-contractors:** heating contractors: Ashwell & Nesbit, Ltd. **Electric floor heating in**

**conservatory:** Electric Panels, Ltd. **Glazed partitions and boarded wall:** Russell Furnishings, Ltd. **Marble floor:** The Nine Elms Stone Masonry Works. **Furniture:** Gordon Russell, Ltd. **Curtains, carpets:** Russell Furnishings. **Light fittings:** The Merchant Adventurers, Ltd. and Troughton & Young (Lighting), Ltd. **Cane radiator panels:** J. Collins & Son. **Leather tooling on desk top:** Roger Powell. **Special locks for furniture:** Joseph Bramah & Co. **Plants:** Westend Flower House, Ltd.

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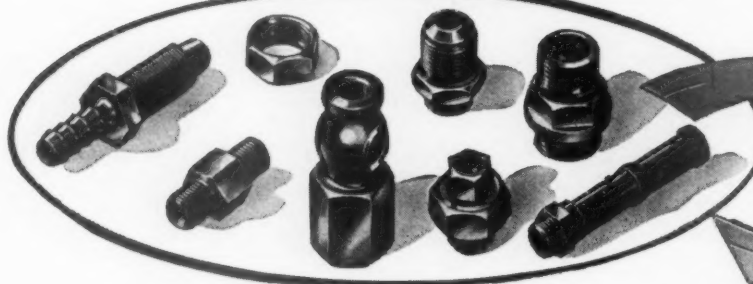
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